

**Museum notes.**

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THE AMERICAN NUMISMATIC SOCIETY

# MUSEUM NOTES

III



THE AMERICAN NUMISMATIC SOCIETY

BROADWAY AT 156TH STREET, NEW YORK

1948



# THE AMERICAN NUMISMATIC SOCIETY

*Founded 1858 • Incorporated 1865*

## HEADQUARTERS

BROADWAY BETWEEN 155<sup>TH</sup> & 156<sup>TH</sup> STREETS

NEW YORK 32, N. Y.

**PURPOSES:** The Society was founded for the collection and preservation of coins and medals with an investigation into their history and other subjects connected therewith.

**MEMBERSHIP:** Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

**DUES:** The annual dues for an Associate Membership are \$5.00. Issues of the *Notes and Monographs*, *Museum Notes*, and *Numismatic Literature* are distributed to all members.

**MUSEUM:** The Society maintains a museum located in uptown Manhattan, New York City, which houses its offices, collections and library. Collections embrace coins of all periods from their inception in Greece to modern times, medals and decorations. Selections from its cabinets are on display in an exhibition. The library, consisting of about 12,000 volumes, covers all branches of numismatics.

**PUBLICATIONS:** The *Numismatic Notes and Monographs* consist of separately issued papers, each on a single topic, of which two to four numbers appear each year. *The American Numismatic Society Museum Notes* is a publication consisting principally of brief notes and papers on items in the Society's collections, which is irregular in appearance. *Numismatic Literature* is a quarterly listing current numismatic publications with abstracts of their content. *Numismatic Studies* is a series which accommodates works of full book length.

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THE AMERICAN NUMISMATIC SOCIETY  
MUSEUM NOTES

## THE AMERICAN NUMISMATIC SOCIETY MUSEUM NOTES

is a publication consisting principally of brief notes and papers on numismatic items in the Society's collection. It is prepared by the Staff and Members of The American Numismatic Society.



THE AMERICAN NUMISMATIC SOCIETY  
MUSEUM NOTES

III



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BROADWAY AT 156TH STREET  
NEW YORK  
1948

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GREEK COINS  
ACQUIRED BY  
THE AMERICAN NUMISMATIC SOCIETY IN 1947  
(SEE PLATES I-III)  
THE SIR RONALD STORRS COLLECTION

THE purchase of Sir Ronald Storrs' cabinet of coins of Alexander the Great in 1947 brought a very important addition to the Society's collection. It consisted of 322 tetradrachms (sixty of the posthumous, wide-flan tetradrachms), 120 drachms, two triobols and one didrachm, and comprised his entire collection with the exception of about thirty pieces.

It will be recalled that Mr. Newell's study of the Alexander coinage was based on a large hoard found at Demanhur in Egypt in 1905. Mr. Newell's first publication on the find, which appeared in the *American Journal of Numismatics* in 1911-12, was revised by him in 1923.<sup>1</sup> In this republication Mr. Newell listed the segments of the hoard which he had traced, studied, purchased when possible, and recorded when he was unable to acquire them.

The F. Munroe Endicott Collection, given to our Society in 1935, also contained specimens from the Demanhur hoard. Mr. Endicott was one of two individuals who had access to the hoard when it was dispersed; the second person was none other than Sir Ronald Storrs. Mr. Newell must have seen at least the Demanhur part of the Storrs Collection, for one of his notebooks lists 205 tetradrachms and a large portion of the drachms, and many of his casts bear indications that they record coins from this cabinet.

<sup>1</sup> *Alexander Hoards-II. Demanhur Hoard* (Numismatic Notes and Monographs No. 19). New York, 1923; hereafter cited as *Demanhur Hoard*.

The distinguished services of Sir Ronald Storrs during World War I will be known to those who have lived through two world wars. Of his brilliant diplomatic career in Egypt and his very effective support of Lawrence of Arabia we are told in *The Seven Pillars of Wisdom*. Then followed a period as Military Governor of Palestine after Allenby's withdrawal, and a term as Governor of Cyprus. His success in all these appointments shows that his was no mean part in the history of the Near East. His delightful memoirs tell of his relations with Cromer and Kitchener, among others, many of them men whose names are writ large on the record. His *Memoirs* make more than one mention of his coin collecting. Although the references are brief and by way of passing, they reveal that this was one of his very real interests and one to which he turned whenever opportunity offered. His coins reveal that he was an excellent numismatist, since almost the only ones not in extraordinary condition are of great rarity. This shows most prominently, perhaps, in the heads of Zeus on the reverses. Again and again one is struck by the character shown in the features of the god as well as by the centering or the clarity of the symbol.

If the Demanhur specimens and the excellent condition of the coins in the collection deserve attention, so do the sixty examples of the late, spread-flan tetradrachms bearing Alexander's types but issued posthumously (Müller's Class VI). The value of these pieces for rebuilding the record of the coinages of many cities of Asia Minor in the second century can hardly be exaggerated.

A selection is illustrated on PLATE I, and their description follows:

1. Heracles head in lion skin, to right.

*Rev.* Zeus seated to left with eagle in outstretched right hand. Beneath hand, youthful figure, crouching slightly and with outstretched arms. The throne without crosspiece between legs is distinctive.

Æ. Tetradrachm. 17.22 grams.  $\uparrow \rightarrow$  (Müller 637; Newell, *Demanhur*, 1649) PLATE I, 1.

The subsidiary figure of a suppliant youth has long been recognized as Sicyonian.<sup>2</sup> In discussing the Demanhur hoard, Mr. Newell commented on the pair of dies which struck this piece.<sup>3</sup> On the specimens available to him, he believed he could discern a bird beneath the outstretched arms of the youth, although he carefully qualified the suggestion with the statement that this might prove merely a die break. A bird in a somewhat similar position does occur on later issues of Sicyon. The specimen in the Storrs Collection, however, is from an early state of the dies, and it will be seen from the reproduction that the die break in its beginning form precludes the identification as a bird.

2. Similar to the foregoing. The subsidiary figure is a tiny Athena Promachus to right.

Æ. Tetradrachm. 17.14 grams.  $\uparrow \searrow$  (Müller 649; Newell, *Demanhur*, 967) PLATE I, 2.

It will be recalled that the coins from the mint of Amphipolis comprised a heavy proportion of the Demanhur hoard. The tiny subsidiary symbol, Athena Promachus, is exquisite.

3. Similar to the foregoing except for the *khnum* symbol and the monogram under the throne.

Æ. Tetradrachm. 17.17 grams.  $\uparrow \uparrow$  (Müller 1517; Newell, *Demanhur*, 4748) PLATE I, 4.

The tetradrachms of Alexandria are among the loveliest in Alexander's coinage. The symbol (*khnum*) is distinctively Egyptian. Mr. Newell comments that although over a hundred pieces with this symbol were reported to have been in the hoard, he had seen only thirty-three. Sir Ronald must have been impressed

<sup>2</sup> Cf. E. Babelon in *Revue Numismatique*, 4e ser. VIII (1904), p. 117.

<sup>3</sup> *Demanhur Hoard*, p. 77.

with their superior workmanship, for there were a round dozen of them in his collection.

4. Similar to the foregoing except for monogram beneath throne and the symbol, a figure of Artemis facing and holding two long torches.

Æ. Tetradrachm. 17.24 grams. ↑ ↙ PLATE I, 3.

In his *Demanhur Hoard* monograph Mr. Newell did not decisively attribute this variety to Lampsacus. His tray and ticket identifications indicate that since the monograph's publication, any doubts he may have had have been dispelled.

5. Similar type, but head of Heracles is notably broader in style and larger in scale.

Rev. Similar type, but broader in style. In field to left, seated griffin facing left.

Æ. Tetradrachm. 16.79 grams. ↑ ↑ Greatest flan diam. 35 mm. (Müller 928) PLATE I, 5.

The symbol as represented on this coin is the *parasemon* of the city of Assus.

6. Similar, with larger flan and hammered edges.

Rev. Similar; in field to l., a wreathed xoanon (?) above lyre; beneath throne, monogram; in exergue, A.

Æ. Tetradrachm. 15.91 grams. ↑ ↑ Greatest flan diam. 38 mm. (Cf. Müller 971.) PLATE I, 6.

Müller's assignment of this symbol to Mytilene has been generally accepted. The tiny sphinx which is to be seen as a decoration to one of the legs of the throne is not peculiar to this mint; it also occurs at Chios, Alabanda, and elsewhere.

7. Similar; the Heracles head nearly fills the die.

Rev. Similar; in l. field, two monograms and single-handled wine vessel beneath an arch of grapes and leaves.

Æ. Tetradrachm. 16.21 grams. ↑ ↑ Diam. 35 mm. (Müller 960) PLATE I, 7.

Although these coins of Temnos are common, this one is noteworthy for its condition. This abundance is in contrast to what

we should expect from the scanty coinage in other denominations.

## MELOS

8. Head of Athena in crested Corinthian helmet to r.

*Rev.* Bearded male figure holding cithara, facing r., on ornate throne. The throne bears a pomegranate in relief. In r. field, ΜΑΛΙΩΝ in vertical line; in l. field, ΑΣΩΠΙΟΣ.

℞. 14.35 grams. Holed and worn.

PLATE II, 8.

This rare tetradrachm of Melos is known in only three other versions. One of these, with the magistrate's name, ΣΩΣΑΡΧΟΣ, is engraved by Pellerin (PLATE II, A).<sup>4</sup> On the obverse there is a cornucopiae behind the head of Athena; the reverse shows the ethnic on the left and the magistrate's name on the right, both in vertical lines.

A second piece (not illustrated here) was in the Pozzi Sale (No. 2041). Its weight is only 12.01, and this alone is enough to arouse suspicion. Caution is further suggested by the none too pleasing style, although the poor preservation of the coin may partly account for this. The magistrate's name (ΜΕΓΑΙΟ) is placed as on the Society's piece. The seated figure is even more feminine than the one engraved by Pellerin. The lyre shows two strings only and the throne seems barrel-shaped. The Athena head of the obverse is large in scale and cruder; it differs in treatment of hair and crest.

The third was in the Imhoof-Blumer Collection and was described by Imhoof, but without illustration.<sup>5</sup> Through the kindness of Mr. E. S. G. Robinson of the British Museum I am enabled to reproduce the photograph of a cast of this piece (PLATE II, B). The original was apparently in poor condition, and unfortunately the cast too is damaged. The inscription is arranged as on our piece except that the letters are in curved rather than vertical lines. The magistrate's name is ΝΕΑΝΘΗΣ. There is a

<sup>4</sup> *Recueil de médailles de peuples et de villes*, I, Pl. XXVII, 30.

<sup>5</sup> *Monnaies Grecques*, p. 224.



large annulet (or letter "O") between the uprights of the lyre. Imhoof-Blumer's description, which has been repeated by Head in *Historia Numorum*, states that the reverse figure is that of Apollo and that he is clothed in a long chiton. The seminude figure makes this description questionable for our piece, and the identification as Apollo is hardly possible, because of the full beard. Alternatively, one thinks immediately of Homer, and, despite objections, this suggestion must be considered. On coins, the seated Homer is usually shown with a scroll, but on a tetradrachm of the Alexander type for Teos, a city which did claim to be the birthplace of the great poet, the subsidiary symbol is a seated figure, bearded, with a cithara, and this figure has close resemblances to the Melos type. There is no literary or other connection of Homer with Melos that I have been able to discover. If the figure is to be taken merely as that of a local poet, we have still to explain the replacement of the Apollo on the other known pieces. As possible identification of the poet who may have been honored by the reverse type, I am indebted to Dr. David M. Robinson for the suggestion of the name of Diagoras, a dithyrambic poet of the late fifth century. This suggestion was also made independently by Mr. Wade-Gery and kindly transmitted to me by Mrs. Homer Thompson. Dr. Robinson also mentioned a Melanippides (fourth century).<sup>6</sup>

Although the reverse type of our coin affords us little help in dating it, the obverse head of Athena is fairly distinctive, and a search among the contemporary issues of its neighbors discloses a striking similarity to the Athena head found on the coinage of Sparta and assigned by Head and others to the period 266–207 (PLATE II, c, reproduced from the British Museum specimen), that is, between the death of Areus and the tyranny of Nabis. This source for the type is not surprising if we recall

<sup>6</sup> For Diagoras see Edmond's *Lyra Graeca* (Loeb Classical Library), III, 320. See also Bergk, *Greek Lyric Poets*, III, 562, for Diagoras, and III, 589, for Melanippides.

that the people of Melos were of Dorian ancestry and sympathies. The name of the magistrate ΑΣΩΠΙΟΣ occurs in at least four places on the mainland of Greece, the most likely one in this connection being the Laconian town on or near the site of Kyparrissia.

It should, however, be possible to narrow the rather wide interval of fifty-nine years so far as the Melian coinage is concerned, since the issue would seem to have been a short one, if we may judge from the known magistrates, four in number. The seated Heracles on the reverse of the Spartan tetradrachms has for prototype pieces (PLATE II, D) issued during the reign of Antiochus II (261–246), following an introduction late in the lifetime of Antiochus I. Seeking the occasion for borrowing this type, used for a relatively short period by the cities of Magnesia and Sipylum, Phocaea, Cyme and Myrina,<sup>7</sup> would take us too far afield. What concerns us here is that seven specimens of these coins were in a hoard found at Sparta in 1907,<sup>8</sup> and that the date assigned this hoard by Mr. Newell<sup>9</sup> is *circa* 245–240. The migration of the type may well have taken place within the decade after the death of Areus.

Antigonus Gonatas was in control of the Cyclades from 256 to 251, when the perfidy of Alexander, the governor of Corinth, deprived him of the greater part of his navy, and he lost this control. It was not until 246–245 that it was possible for Macedon to re-establish suzerainty over the islands, which are believed to have remained in Macedonian possession until the death of Antigonus Doson (221) and possibly even later.<sup>10</sup> As the weight

<sup>7</sup> G. Macdonald, *Journal of Hellenic Studies*, XXVII (1907), pp. 145 ff., and E. T. Newell, *Western Seleucid Mints*, p. 274.

<sup>8</sup> A. J. Wace, *Annual of British School at Athens*, vol. 14, pp. 149 ff.

<sup>9</sup> E. T. Newell, *Eastern Seleucid Mints*, p. 76, note 2.

<sup>10</sup> W. S. Ferguson, *Hellenistic Athens*, pp. 190 ff., where the conclusions agree with those of Beloch. For an opposed opinion as to the dating, see W. W. Tarn, *Antigonus Gonatas*, pp. 461–472.

of these coins is Phoenician (or Rhodian), the weight to which the Melians were traditionally accustomed, and since the use of this weight, along with a Spartan obverse type, would have been unlikely during a period under Macedonian control, it fits admirably into the brief interval 251–246, when, either independently or with the sanction of Egypt, Melos might have coined money in its own name. In the seated figure the Melian reverse does have a similarity which is not very remote from the Spartan reverse.

The excellence of the style and the absence of any tendency toward the spread flan which had begun to make its influence felt by 220 are sufficient to rule out any later dating, and support the assignment submitted herein.

#### ELECTRUM OF IONIA

9. Half figure of oriental deity with curled wings, long hair and beard, to r.

*Rev.* Oblong punch between two other nearly square punches; the squares show irregular markings, while those of the oblong are symmetrical.

Electrum (pale). 7.02 grams. Greatest width, 16 mm.

PLATE II, 9.

This coin is a second example of the piece described on page 565 of the second edition of Head's *Historia Numorum*. It is there listed as unpublished, but Mr. E. S. G. Robinson, of the British Museum, Department of Coins and Medals, has kindly informed me that this is the coin published by Mr. Hill in his list of the acquisitions of the British Museum between 1905 and 1910 in the *Numismatic Chronicle* for 1912, p. 140, Pl. VI, 11.

The London specimen is designated as a half stater of the Phoenician standard, and its specific gravity is given as 14.4, which represents 59% of pure gold according to the very convenient "graph" published by Head (*Num. Chron.*, 1887, p. 308). Its date is given as "hardly later than the 7th Century." Although our specimen has suffered some loss through abrasion,

its weight, 7.02 grams, compares favorably with the 7.05 grams of the London coin.

The eastern character of the type is emphasized, but the identification of the figure represented is hardly to be attempted in view of the poor preservation of both specimens. The three-fold form of the impressions of the reverse marks this as an early issue.

10. Sphinx (or griffin) with uplifted paw, to r. In r. field, uncertain symbol.

*Rev.* Quadripartite incuse. One of the divisions is broken down, giving the effect of two oblong incusi.

Electrum (yellow). 13 by 10 mm.

PLATE II, 10.

A second electrum piece acquired in 1947 is even more enigmatical than the preceding. If we are correct in thinking that the left paw of the sphinx appears above the symbol, the symbol may be taken for a tripod, but since only two legs of the tripod are distinguishable, this identification seems to be eliminated. There is some resemblance to the later electrum stater listed in the British Museum Catalogue, *Ionia*, Pl. III, 19. The workmanship and style of our piece, however, is heavier and cruder, and distinctly earlier. The color is a rich pure yellow, indicating a high proportion of gold.

#### KNIDUS

11. Head of Aphrodite, wearing stephane, earring and necklace, to r. In l. field, crested Corinthian helmet, to r.

*Rev.* Forepart of lion to r. Above, ΘΕΥΜΕΛΩΝ; below, only tops of letters showing, KNI.

*R.* Tetradrachm. 14.50 grams.

PLATE II, 11.

This beautiful piece is said to have been found on the island of Cos. The date limit given for the specimen in B. M. C. *Caria*, p. 272, No. 39A is 390–300.

## ALEXANDRIA TROAS

In 1911, H. von Fritze published a study of the autonomous tetradrachms and drachms of Alexandria Troas.<sup>11</sup> He carefully tabulated the specimens known to him at that time, which had been brought together in connection with the Berlin Corpus. The total of these was only twenty-one tetradrachms and three drachms. In 1928, Dr. Kurt Regling, in describing a new specimen which was found in the Babylon hoard,<sup>12</sup> listed eight further specimens, involving six new dates. Were such demonstration needed, this total would provide a convincing indication of the extreme rarity of these coins, a phenomenon which is sometimes interpreted as evidence of a small coinage. A further addition to these specimens, but not a new date, is to be found in Mr. Newell's collection now in the possession of The American Numismatic Society.

These coins have very great significance because they are dated and because of the period covered by their dates. The history of Asia Minor for this period is very complicated, and Polybius, frequently our only dependable source, has great gaps in the portions of his work which have survived. Further, the inscriptions are few and often ambiguous, and excavations have never been undertaken at many important sites, either because of unpromising local conditions, or because isolation makes the obtaining of workmen a difficulty hard to overcome.

The earliest date listed by von Fritze is 111, and since the beginning of the local era is now generally accepted as 301, when Lysimachus changed the city's name from Antigoneia to Alexandria, this is equivalent to 164 B.C. The latest date so far recorded is 65 B.C. Additions to the known dates were predicted by von Fritze, and we have seen and shall see these predictions confirmed.

<sup>11</sup> *Nomisma*, VI (1911), pp. 24-33.

<sup>12</sup> *Zeitschrift für Numismatik*, XXXVIII (1928), p. 117.



There has been a tendency to date all of the large, spread-flan issues of the cities of Asia Minor as beginning in 189 B.C. because of the terms of the Peace of Apameia, according to which Rome declared them free. Müller dates his Class VI of the issues with the types of Alexander the Great as beginning in this year. The *Historia Numorum* is cautious about accepting such a generalization, and Head frequently states explicitly that the coinages for given cities began "189 or later." As a contrast, the coinage for Rhodes, as he points out in the introduction to B. M. C. *Caria* (p. cix) can hardly have any other period than 188–167 B.C. Dr. Regling dates the coinage for Ilion as beginning in 189.<sup>13</sup> The coinage for Alexandria Troas can hardly have begun before 167, if we may judge from the total absence of a single specimen between 189 and 167, when some thirty-two tetradrachms dating after 165/4 have survived.

The foregoing is a preface to the adding of two further specimens involving two new dates. The first of these, recently acquired by The American Numismatic Society, bears the date  $P\Xi E=136/5$  (PLATE III, 12). As is frequently the case with issues of this city, the condition of the coin leaves something to be desired. The date was first read 166, the third letter-digit being considered a stigma, but Professor B. D. Meritt has kindly pointed out to me that this is an *E* with the middle stroke omitted, and that this form was fairly common in Asia Minor at this period. Since the next date recorded in von Fritze's list was  $P\Pi\Gamma=118/7$  (PLATE III, B) and the preceding one 160/59 (PLATE III, A), our piece supplies a valuable stylistic criterion for the interval.

When Mrs. E. T. Newell learned of this acquisition, she informed me of a specimen in her collection and very kindly gave permission to publish it along with the new piece. Surprisingly

<sup>13</sup> *Ibid.*, p. 118.

enough, this coin (PLATE III, c) also bears an unrecorded date, ΠΝΓ, or 153, which is equivalent to 118/7. This coin bridges the gap between our new piece and the Paris specimen dated 160/59.

Von Fritze calls attention to the difference in style between the Paris coin dated 160 and the London piece dated 118, an interval of forty-two years. The coins which are now being added fall within this interval. Von Fritze's earliest group, now increased by the piece from the Babylon hoard published by Regling, is marked by the presence of the names of two magistrates on the reverse and by the city's name, abbreviated to ΑΛΕΞΑΝ, in the exergue. On the piece dated 148, after an interval of twelve years, a change had taken place. We have but one magistrate's monogram, and the second magistrate's name is given in full (ΠΑΡΜΕΝΟΤ) in the exergue below the ethnic. On the second of the new coins, dated 136, that is, struck after another twelve-year interval, the monogram has been shifted from the left field and crowded into the scanty space in the right field below the date. The second magistrate's name (ΤΙΜΟΧΑΡ) is in the exergue. On the next issue which has come down to us, and which bears the date 118, we find the city's name written out in full and the monogram again occupying the left field; this procedure seemingly continues throughout the succeeding coinage.

Further changes call for comment. The treatment of the figure of Apollo on the pieces struck before 160 is comparable to that of the Athena figure on the coinage of Ilion. The figure of Apollo<sup>14</sup> is well preserved on Mrs. Newell's specimen and is astonishingly well modelled for this date. Nor is there a sharp falling off in the Society's piece, though its preservation makes

<sup>14</sup> For an interesting discussion of the literary references to the reverse type for Alexandria Troas, the cult statue of Apollo Smintheus, see the article "Scopas in Chryse" by Virginia Grace in *Journal of Hellenic Studies*, LII (1932), pp. 228 ff.

this less apparent. The drapery no longer falls in a great fold, but the figure is excellent.

On the London piece dated 118, both style and workmanship are poor; the treatment of the drapery is markedly in contrast to what we have observed previously, and the workmanship can hardly be praised. These conditions are to be found on the obverse also. The earlier head of Apollo, with its corkscrew curls and dainty, fluttering ribbons of the wreath, has become by 118 a gross, unattractive type, with stringy, untidy locks. A noteworthy change of scale has taken place; the head of Apollo now crowds the flan instead of being surrounded by a broad field which served as its frame or background. We are now, thanks to these coins of PLATE III, in a position to show that this change of style took place between 136 and 118, a fact which may prove of value for future comparisons with the coinages of other cities of Asia Minor.

## RHODA HISPANIAE

13. Head of nymph to l., wearing earring and necklace. In r. field, monogram composed of letters A and T (?).

*Rev.* Conventionalized rose.

.R. Drachm. 4.68 grams.

PLATE III, 13.

The most satisfactory reference for this rare drachm of Rhoda is to be found in G. F. Hill's *Notes on the Ancient Coinage of Hispania Citerior* (Numismatic Notes and Monographs No. 50), p. 6. It is closest to the Vienna specimen, with the same monogram (?), the first variety illustrated there, and is a little earlier and a little better preserved than the piece in Mr. Newell's collection, which shows a four-letter inscription, whereas the inscription, if there was one, is off-flan on this coin. One of the Gallic imitations of these coins is among the coins received from the Hispanic Society of America during the past year.

## ALEXANDER DIDRACHM

14. Head of Heracles in lion's pelt, facing r.

*Rev.* Zeus enthroned to l., holding eagle on outstretched right hand. Beneath arm, an eight-pointed star.

Æ. Didrachm. 8.33 grams.

PLATE III, 14.

The didrachm is a denomination which seldom appears in the coinage of Alexander the Great. A count of those in Mr. Newell's collection disclosed a total of only ten. The present specimen, along with one of the Babylon mint received with the Sir Ronald Storrs Collection this year, raises our total to twelve. These twelve didrachms are from three mints: Amphipolis (7), Tarsus (1) and Babylon (4). At Amphipolis, to which mint this piece belongs, the didrachms seem to come early in the coinage, and in all cases the issues are to be dated before 323 B.C.

SYDNEY P. NOE

## THE "INCUSE" COINAGES OF SOUTH ITALY

(SEE PLATE IV)

IN a previous study of the historical evidence furnished by Greek overstrikes and hoards<sup>1</sup> I made a passing reference to a possible explanation of that curious and interesting fabric, loosely if somewhat inaccurately known as "incuse," which characterizes certain Greek mints of Southern Italy in the second half of the sixth century B.C., showing an obverse type rendered in relief and associated with a reverse which, "seen through the looking glass," is rendered intaglio. Each of these intaglio types (or, as they may be termed, the "negative" types) was so designed and struck as to secure a normally exact correspondence between the area of flan occupied by the obverse (or "positive") type and that occupied by the negative: that is to say, the dies were so adjusted that, at the moment of striking, the raised pattern of the reverse die would press the silver precisely into the correspondingly hollowed-out pattern of the obverse die.

This bold and arresting fabric frequently achieved effects of unusual beauty, as is to be seen most obviously in the fine pieces struck at Metapontum<sup>2</sup> (PLATE IV, 3), while making such other coinages as those of Tarentum, Sybaris, Croton (PLATE IV, 5) and Poseidonia (PLATE IV, 4) of conspicuous interest. Indeed, the subtle charm thus often obtained has perhaps obscured the realiza-

<sup>1</sup> *Numismatic Chronicle*<sup>6</sup> ii (1942), p. 7. In the preparation of the present paper I have had the advantage of critical discussion, either personally or by correspondence, with Professor A. R. Bellinger, Professor T. O. Mabbott, Dr. J. G. Milne, and Mr. S. P. Noe. For this I am grateful, but they must not be held accountable for the views here expressed.

<sup>2</sup> S. P. Noe, *The Coinage of Metapontum* (Part One) (American Numismatic Society's *Numismatic Notes and Monographs*, No. 32; New York, 1927).



tion of the technical difficulties which the fabric certainly involved. In the first place it necessitated exceptionally careful preparation of the reverse dies that were to strike the "negative" types, which, as we have noted, had to correspond exactly with the area covered by their respective "positives." And secondly, in order that this correspondence should be effective, it was essential that the obverse and reverse dies should be adjusted in an exactly fixed relationship at the moment of striking; for the flans employed were so thin that the slightest maladjustment would have cracked or pierced the silver, at the same time seriously damaging the dies themselves. The first of these points received careful attention from Noe,<sup>3</sup> who, calculating that the cutting of Metapontine reverse dies by the direct method would involve the removal of about three-quarters of the surface of the die to a uniform depth of about 4 mm., and pointing out that this strenuous method must nevertheless leave untouched the more delicate projections in relief, adopted Hill's suggestion<sup>4</sup> that these reverse dies were produced by the process of "hubbing." The second point—the fixed relationship of the dies at the moment of striking—was of course also clear to both Hill<sup>5</sup> and Noe.<sup>6</sup> It does indeed deserve special emphasis, for "fixed" (or hinged) dies were rare in the Greek world before the fourth century. When finally adopted, they were little more than a technical convenience: in Magna Graecia, on the other hand, they were a technical necessity, for, stand your workman where you will,

<sup>3</sup> *Op. cit.*, pp. 16 ff.

<sup>4</sup> *Numismatic Chronicle* 5 ii (1922), p. 21. Hubbing does not, however, explain all the phenomena of incuse types. A friend points out that on coins of Poseidonia the trident and the inscription appear in relief on both obverse and reverse. If hubbing was employed, the process must sometimes have involved the use of hubs which, designed to reproduce the main elements of the type, allowed for the subsequent addition upon the hub-struck dies of details appearing in relief upon the coins themselves.

I have not yet seen *Revue belge de numismatique*, 1947, with its contribution "La technique des incuses" by P. Naster.

<sup>5</sup> *Ibid.*, p. 39, n. 90.      <sup>6</sup> *Op. cit.*, p. 16.

you cannot guarantee that if he holds a loose die in his pincers he will not alter its position (throughout a long spell of arduous striking) in relation to the other die sunk in the anvil's head.

A comparison of these special difficulties inherent in the "incuse" fabric with the far more straightforward methods simultaneously employed in the double-relief coinages elsewhere in the Greek world has not been always clearly remembered when explanations of the fabric have been suggested. F. Lenormant's view<sup>7</sup> that it indicates a monetary confederation among the Achaean colonies of South Italy is plainly unsound, even when allowance is made for apparent joint issues like those of Croton-Pandosia and Siris-Pyxus. Tarentum (and likewise Zancle in Sicily, alone among Sicilian mints in using the "incuse" fabric) was a Dorian, not an Achaean, foundation. The weights of the various "incuse" coinages, though closely related (below, pp. 23 f.), cannot be said to show the uniformity which should be the fruit of confederation.<sup>8</sup> Hill<sup>9</sup> and Macdonald,<sup>10</sup> avoiding these hazardous waters, preferred to suggest a common practical convenience for a common fabric, in the theory that this fabric makes for ease in stacking, or for steadiness in striking.<sup>11</sup> This latter view is akin to Milne's suggestion<sup>12</sup> that the "incuse" fabric, as well as possessing artistic appeal, provided a deep rim around the edge of the coin (raised on one side and sunk on the other), which acted as a collar to hold the coin in place at the moment of striking and prevent the spread of the metal—a view supported

<sup>7</sup> *La monnaie dans l'antiquité* (new edn.), ii (Paris, 1897), p. 65.

<sup>8</sup> Cf. G. Macdonald, *Coin Types: their Origin and Development* (Glasgow, 1905), p. 13 f.

<sup>9</sup> *A Handbook of Greek and Roman Coins* (London, 1899), p. 152.

<sup>10</sup> *Loc. cit.*

<sup>11</sup> Cf. Hill in *Numismatic Chronicle* 5 ii (1922), p. 33, though with diffidence. It may be remarked in passing that anyone who has attempted to stack "incuse" coins or to arrange them in *rouleaux* will know that they offer difficulties hardly less than those of orthodox double-relief coins.

<sup>12</sup> *Greek and Roman Coins and the Study of History* (London, 1939), p. 34 f.

also by Noe.<sup>13</sup> As a practical suggestion it is certainly preferable to the theory of Seltman<sup>14</sup> that the Pythagorean doctrine of "opposites," emanating from the sect's centre of influence at Velia, extended from the fields of philosophy and etymology even to that of coinage, which thus displayed "back" and "front," "incuse" and "excuse" types. The Greek view of coinage in the sixth century, and for the greater part of the fifth, almost invariably held it to be a strictly practical affair of social convenience. If it was comely, well and good; but first and foremost it was an economic utility. Noe himself, while giving the salutary reminder that the "incuse" fabric preceded Pythagoras' migration from Samos to the West, inclined to the view that it was intended as a means of preventing the export of coin from Italy.<sup>15</sup>

Insistence on the necessity of preserving the current volume of South Italian silver coinage against diminution through export is, indeed, very much to the point. The evidence furnished by overstrikes and hoards for the movement of Greek coins in this period<sup>16</sup> suggests, with reasonable sureness, that there was virtually no export of coinage from the Italian peninsula. In fact, so far as the Greek cities of South Italy were concerned, movement was in the reverse direction: non-Italian coinage was seen regularly entering the peninsula, and analysis of the overstrikes showed that the cities now under review—Tarentum, Metapontum, Sybaris, Croton, Caulonia and Poseidonia—absorbed currency from Agragas, Gela, Himera and Syracuse in Sicily; from Corcyra, Dyrrhachium and (above all) Corinth in Central Greece; and, further afield, from Thasos and the Thraco-Macedonian area. Italy, it must be remembered, possessed no natural resources of silver from which voluminous coinages could be produced. Therefore, while Sicily could draw upon the vast stocks of Spanish silver which the Phocaeans made

<sup>13</sup> *Op. cit.*, p. 27.    <sup>14</sup> *Greek Coins* (London, 1933), p. 78.    <sup>15</sup> *Op. cit.*, p. 15.

<sup>16</sup> *Numismatic Chronicle*<sup>6</sup> ii (1942), pp. 1 ff., esp. p. 7. See also note 21, below.

it their business to ship thither in the sixth century, being superseded in this lucrative traffic by the Carthaginians after the battle of Alalia,<sup>17</sup> Italy must perforce rely upon other sources, of which Corinth (on the evidence of overstrikes) must have been by far the most abundant.

Certain points have therefore emerged so far:—(i) "incuse" fabric is a characteristic which (apart from the single exception of Zancle) is peculiar to the principal Greek mints of South Italy in the second half of the sixth century; (ii) it involved exceptionally careful preparation of dies, with proportionately greater difficulty; (iii) it necessitated an accuracy of die-adjustment not called for elsewhere; (iv) the coins produced in this fabric formed a stock of silver currency which, so far from being available for export, was in fact supplemented by assiduous importation of silver, notably in the form of Corinthian coin. Bearing these points in mind we may return to a consideration of the possible origin of this fabric, which, as Noe remarked,<sup>18</sup> "seems . . . to have been a spontaneous invention and to have been evolved without any evolutionary development." My previous suggestion that the "incuse" fabric was adopted as the best method of systematically overstriking former types may now be amplified in view of the factors of prevalence, of technical difficulty, and of metal-economy which have now been determined.

When Head advanced the view<sup>19</sup> that the "incuse" fabric derived from the early issues of Corinth (PLATE IV, 1) with reverses bearing a punched swastika incuse, he was perhaps not far from the mark. For although Noe<sup>20</sup> rightly rejected the idea that the swastika incuse could in any sense be termed the model for South Italian "incuse" reverses, Head was probably correct in looking to the Corinthian coinage for factors likely to affect the development of coinage in Italy. Recorded overstrikes show

<sup>17</sup> Cf. J. G. Milne in *Numismatic Chronicle*<sup>5</sup> xviii (1938), pp. 46 ff.

<sup>18</sup> *Op. cit.*, p. 14.      <sup>19</sup> *Historia Numorum*<sup>2</sup> (Oxford, 1911), p. lii.      <sup>20</sup> *Ibid.*

beyond any doubt that the coinage most widely and persistently overstruck in Italy was that of Corinth: indeed, the frequency with which the *pegasi* were overstruck, especially at Metapontum (cf. PLATE IV, 2) and Tarentum, is a phenomenon hardly paralleled elsewhere in the Greek world. In itself, of course, this phenomenon might indicate that, while South Italian mints absorbed a "normal" proportion of imported coinage for overstriking, they turned out an exceptionally high proportion of badly executed overstrikes. But the available evidence scarcely supports such a view. Not only, as we have seen, was the Italian need of foreign silver constant and intense: but the "incuse" coinages, by contemporary standards, were of excellent technique, the difficult fabric being successfully mastered from the first and resulting in coins of neat and attractive appearance. For these reasons it appears preferable to suppose that the list of South Italian overstrikes upon Corinthian types points rather to a "normal" proportion of badly executed overstrikes magnified in proportion to abnormal importation and overstriking of Corinthian coins.<sup>21</sup>

If this be accepted, certain technical considerations may be noticed in the choice of a special fabric for the systematic obliteration of former types. Granted the necessity of heating a flan and rendering it broader and thinner in the process of overstriking, it is not difficult to see what conditions had to be satisfied. In the first place, the application of a new type to each side of the flan must be effected in such a way as to achieve the maximum obliteration of the former types. When it is remembered that the standard Corinthian reverse-type down to the middle of

<sup>21</sup> It is legitimate to stress this point. Such "overstrikes" as we call by that name are, in fact, *recognizable overstrikes*, i.e., coins imperfectly overstruck, and exhibiting in various degrees traces of their undertypes. But for every recognizable overstrike known to us there must have been a far greater number of pure *overstrikes* wholly (or almost wholly) successful in obliterating the undertypes. Understanding of the subsequent argument will depend on the clear distinction between *recognizable* and *pure* overstrikes.



the sixth century<sup>22</sup> consisted of an incuse swastika punch, the aptness of overstriking this with a reverse die bearing a *raised* design will at once be clear. The effect of striking the flan between two dies of the same design—one with a raised and one with a hollowed device, so fixed as to correspond accurately—could only be to displace violently all that area of the flan which lay between, driving the existing incuse design further inwards and the existing relief design further into relief, and at the same time flattening all such parts of the original flan as were not caught between the "incuse-relief" area of correspondence of the overstriking dies.<sup>23</sup> Insufficient heating of the flan, or insufficient strength in striking, would of course result in partial failure. An excellent example of this is catalogued by Noe<sup>24</sup>—a stater of Croton overstruck at Metapontum; but Noe perhaps obscured the significance of this example by saying that "the Croton stater seems to have been hammered almost flat before being restruck." Caught within the interlocking design of the two Metapontine dies, the original types of Croton would inevitably be hammered, parts of them flat, parts into the shape imposed by the overstriking dies.

A second condition that must be satisfied in a coinage with a high proportion of imported pieces struck into a thin and disk-like form was that of strength. It is a well known principle that thin sheets of metal, when traversed by pressure-moulded ridges

<sup>22</sup> Adopting the classification of O. E. Ravel, *Les "Poulains" de Corinthe* (Bâle, 1936), though, as will be suggested below, there is some reason for supposing his upper limits of dating to be somewhat high.

<sup>23</sup> It would be misleading to suggest that all overstriking took place obverse on obverse, reverse on reverse. But it may be suggested that overstriking in conjunction with the "incuse" fabric *began* on this system, recommending the fabric as such: of four instances, known to me, showing "incuse"-fabric overstriking of flans originally bearing an obverse type in relief with an incuse-punch or incuse-type reverse, three (*Sylloge Nummorum Graecorum* ii, 429; de Luynes 460; Noe, *op. cit.*, No. 204) were overstruck obverse on obverse, reverse on reverse.

<sup>24</sup> *Op. cit.*, p. 80, No. 100 a.

which are correspondingly indented on the under-surface, are remarkably proof against bending or buckling. Coins of "incuse" fabric enjoyed precisely this protection: in addition to the press-mouldings afforded by the main type itself, such coins (as has been noticed) generally possessed a bold outer border similarly rendered in "incuse" technique. The joint effect of type and border was to render these thin flans immensely strong, and it is sufficient to remark on the extreme rarity of bent or buckled pieces—in obvious contrast to the frequent distortion seen in the medieval coinages of England and the Continent.

If, then, we accept as a working hypothesis the view that the "incuse" fabric was deliberately adopted for the systematic overstriking of imported coins, to ensure both the maximum of obliteration and the maximum of strength, it will be necessary to show that the normal weight-standards of these South Italian mints are in some close relation to the standards of the coins assumed to have been regularly overstruck. No great difficulty arises here. The conception of Corinthian coins travelling across the Adriatic to South Italy, and then from one Greek city to another, with progressive loss of weight, was originally propounded by Milne,<sup>25</sup> who rightly emphasized the close connection between the systems of Corinth and of South Italy. It is true that this view requires certain modifications—it does not, for example, explain why Corinthian coins are by no means found commonly in South Italy; and the westward diminution of weight does not in fact provide the even graph which he postulated—but it does nevertheless satisfy the main conditions of weight when it is applied to the theory of systematic overstriking, as is shown by the following frequency table, which, though far from exhaustive, gives reasonably representative figures.

From Ravel's "première période, archaïque-primitive" at

<sup>25</sup> *Greek Coinage* (Oxford, 1931), p. 33 f.

# The "Incuse" Coinages of South Italy

23

FREQUENCY TABLE, BY .05 GM.  
(EACH COIN TO NEAREST .02 GM.)

	<i>Corinth</i> (Early)	<i>Tarentum</i>	<i>Metapontum</i>	<i>Sybaris</i>	<i>Croton</i>	<i>Caulonia</i>	<i>Poseidonia</i>
8.60	6	—	—	—	—	—	—
8.55	8	—	1	—	—	—	—
8.50	8	1	1	—	—	—	—
8.45	6	—	—	—	—	—	—
8.40	10	—	1	—	—	—	—
8.35	10	—	3	—	—	—	—
8.30	12	—	3	—	1	1	—
8.25	9	—	6	1	1	—	—
8.20	3	—	19	1	—	3	—
8.15	10	—	29	1	—	5	—
8.10	5	1	32	5	—	5	—
8.05	7	—	23	1	3	4	—
8.00	1	2	85 <sup>26</sup>	2	6	5	—
7.95	1	—	31	2	3	1	—
7.90	4	1	17	4	8	5	—
7.85	4	—	18	3	5	—	—
7.80	2	—	26	1	2	—	—
7.75	—	—	10	1	3	3	—
7.70	—	—	7	—	4	2	—
7.65	—	—	8	—	4	1	2
7.60	—	—	6	1	3	2	—
7.55	—	—	7	1	5	1	2
7.50	—	1	3	—	3	—	8
7.45	—	—	2	1	1	1	4
7.40	—	—	3	—	2	—	7
7.35	—	—	—	—	—	—	2
7.30	—	—	—	—	—	—	—
7.25	—	—	—	—	—	—	2

Corinth, which he dates from 650 to 550 B.C.,<sup>27</sup> it is thus pos-

<sup>26</sup> This unusually conspicuous figure is swollen by the great number of Curinga hoard coins, the weights of which (as listed by Noe, *op. cit.*) cluster remarkably (and suspiciously ?) round the 8.00 gm. mark.

<sup>27</sup> *Op. cit.*, pp. 41 ff. It is likely that attention must be directed towards a revised date for

sible to show by means of the frequency table that, of some 112 coins, 38% form what may be called a "narrow peak" between 8.42 and 8.28 gm., while 50% lie between the broader limits of 8.62 and 8.23 gm. The weights of the South Italian coinages now under discussion are plainly such as to suggest—or permit—the absorption of Corinthian issues on this standard, with a loss of weight of about .5 gm. in the extreme south of the peninsula, and of up to 1.0 gm. in the remoter Poseidonia. For, while the very rare *incusi* of Tarentum are unsafe as a basis for statistics,<sup>28</sup> the voluminous evidence of Metapontum shows that, of some 340 coins, 25% are concentrated narrowly between 8.02 and 7.98 gm.,<sup>29</sup> while 80% lie within the broader limits of 8.17 and 7.78 gm. The output of the other mints in question—Sybaris, Croton, Caulonia and Poseidonia—was less heavy, and is not easy to analyse, as these issues have not been systematically catalogued in *corpus* form. But it can be shown that, of 25 coins of Sybaris, 68% lie between 8.12 and 7.83 gm.; that at Croton, out of 54 coins, 40% lie between 8.02 and 7.83 gm., with 90% between the broader limits of 8.07 and 7.53 gm.; and that, of 39 coins of Caulonia, 62% lie between 8.17 and 7.88 gm.<sup>29</sup> And Poseidonia, away up on the west coast, shows 66% of her 27 coins between 7.52 and 7.38 gm. When it is remembered that the coinage of Corinth herself, on the frequency table, shows continuous entries dropping by .05 gm. from 8.60 to 7.80 gm., it will be clear that little objection can be brought, on grounds of weight, against the theory that South Italian coinage absorbed large quantities of Corinthian pieces for systematic overstriking.<sup>30</sup>

the institution of Corinthian coinage, later by perhaps half a century, falling under Periander and not Cypselus, and suggesting community of sympathy and policy between Corinth and Solonian Athens, herself also experimenting with her own new coinage.

<sup>28</sup> Six examples lie between 8.12 and 7.88 gm.      <sup>29</sup> Though *cf.* note 25, above.

<sup>30</sup> According to Head, *Historia Numorum*<sup>2</sup> (Oxford, 1911), p. liii, the "standard of the early Poseidonian coins was "Campanian," being derived through Velia ("founded by

To overstate the case would, of course, be to weaken it. Any suggestion that these South Italian mints confined themselves exclusively to the absorption of Corinthian issues would be ridiculously wide of the mark, and the recorded overstrikes provide ample and powerful refutation of any such view. The evidence discussed above warrants no more than the theory that it was an initial prevalence of imported Corinthian issues which influenced the evolution and development in South Italy of the "incuse" fabric. That fabric, once developed, could and did lend itself to the overstriking of other and varied issues: a technique which in its original form was peculiarly well suited to the overstriking of the early *pegasi* was capable, in an advanced form, of absorbing other issues, provided that their weight was correct or that it could be adjusted.

One conspicuous question remains to be answered. When did the "incuse" fabric come to an end, and why? That it was still common down to 510 B.C. may probably be concluded from the fact that Sybaris, overthrown by Croton in that year, had made no variation from it. Moreover, the coins of Sybaris are almost wholly free, as Noe remarked,<sup>31</sup> from the tendency (visible

fugitive Phocaeans in B.C. 540") "directly from Asia Minor," together with the Velian type itself, the lion devouring his prey. The transmission of a traditional type is surely natural enough when a fugitive population undertakes mass migration. It is far more difficult to allow that, with the type, the Phocaeans also brought the standard afterwards associated with the Campanian coinages, but, except for communicating it to Poseidonia, kept it to themselves until the later Campanian coinages arose. Standards must be fixed locally, in the light of local prices and conditions; and it would be more likely to suppose that Phocaean immigrants necessarily adapted themselves to the standards which they found prevailing in South Italy—standards of which, as West Mediterranean thalassocrats, they were almost certainly aware. If the local standard agreed with that to which they were accustomed in Phocaea, c. 7.65 gm., so much the more fortunate. The frequency table on page 23 shows how very near this correspondence was, on the basis of increasingly worn Corinthian staters used for overstriking; the lower standard of Poseidonia is due to the increasing lightness of these staters in the remoter towns. There is no need to postulate a "Campanian standard" at this time: its Asiatic origin is unacceptable, and it had no function to perform.

<sup>31</sup> *Op. cit.*, p. 15.

elsewhere) towards a narrower and therefore thicker flan. This tendency perhaps occurred in the last decade of the sixth century, and was presumably followed closely by the interesting transitional fabric in which, while an incuse reverse was retained, it bore no fixed relation to the relief obverse, since the thickened flan made correspondence unnecessary. In this final stage of the "incuse" fabric, the incuse reverse became a mere convention,<sup>32</sup> and it gave place inevitably to a reverse type in relief early in the fifth century. Acceptance of the coinage of Corinth as the chief material for "incuse" overstriking in South Italy leads, not unnaturally, to the suggestion that the abandonment of the "incuse" fabric was due to radical change in the Corinthian fabric. Such a radical change came about when the swastika incuse-punch gave way to a rectangular punch containing a helmeted head of Athena in relief; and the flans of this double-relief coinage at once became narrower and thicker. Ravel has dated this fundamental change to 550 B.C.;<sup>33</sup> but, quite apart from the possibility that his general chronological scheme antedates the beginnings of the Corinthian coinage (above, pp. 20, 22), considerations of style may well be invoked in asking whether the first double-relief issues can be so early. If they could be dated some 20 or 30 years later, and if due allowance were made for a time-lag involved in their importation and absorption by Italy, it might be conjectured that soon after c. 500 B.C. they were becoming common enough to oust the former Corinthian issues and, that by reason of their wholly different fabric, they made necessary the adoption of a wholly different fabric in Italy itself.

C. H. V. SUTHERLAND






<sup>32</sup> Cf. the tripod-eagle issues of Croton, and the tripod-bull issues of Croton-Pandosia.


<sup>33</sup> *Op. cit.*, pp. 57 ff.





## A SELEUCID MINT AT ELAEUSA SEBASTE

(SEE PLATE V)

**R**ARE tetradrachms of Antiochus VIII and common ones of Seleucus VI have Pallas Nicephorus as a reverse type and are distinguished by a little plant with four branches or leaves outside the inscription to the left. These were not issued from Antioch, whose type for Seleucus VI is the familiar seated Zeus (Newell, *Seleucid Mint of Antioch*, p. 111).

There are only two published specimens known to me, struck for Antiochus VIII: *Numismatische Zeitschrift*, 1901, p. 4, No. 1, Pl. I, 2; and Naville Catalogue X (1925), p. 99, No. 1438, Pl. 56. The first has   in the exergue; the second  AP, also in the exergue. To these must be added a third in the Newell Collection [PLATE V, 1; acquired from the Pozzi Collection but not included in the sale catalogue] on which the monograms   are not in the exergue but between Pallas and the ΕΠΙΦΑ-ΝΟΣ of the inscription.

On one of the pieces of Seleucus VI the magistrates' marks are in the exergue: *B.M.C.*, p. 95, No. 2, with N  (which has an owl as well as plant in the left field). All the other varieties which I have seen have the marks between Pallas and the inscription. Those which have come to my attention are as follows:

1.   Hermitage (*Journal International d'Archéologie Numismatique* XIII, p. 170, No. 734).
2.  ΑΠΘΑ Babelon, *Rois de Syrie*, p. 198, No. 1515.
3.  ZH Newell Collection [PLATE V, 2]; Babelon, p. 199, No. 1517; *B.M.C.*, p. 95, No. 4; Naville X, p. 103, No. 1507; *Hunterian Collection* III, p. 108, No. 6; Mionnet V, p. 100, No. 885; Pellerin, *Médailles de Rois*, Pl. XIII.



4. AÆ IΣI Naville X, p. 103, No. 1502.
5. A<sup>Ϟ</sup> IΣI *Op. cit.*, p. 103, No. 1504.
6. NE IΣI *Op. cit.*, p. 103, Nos. 1505, 1506 [Now Newell Collection, PLATE V, 3]; Babelon, p. 199, No. 1516; *Hunterian Collection* III, p. 108, No. 4; Aberdeen (*Sylloge Nummorum Graecorum* I, Part 2), No. 445; Hermitage (*J. I. A. N.* XIII), p. 170, No. 733; Mionnet V, p. 100, No. 884.
7. NI ΣI *B.M.C.*, p. 95, No. 53 (?=NE IΣI).
8. ΠO IΣI *Hunterian Collection* III, p. 108, No. 5, Pl. LXX, 8.
9. AΛE ΔIΦ Yale Collection [PLATE V, 4]; Newell Collection; Numismatic Society Collection; Naville X, p. 103, No. 1503 [Now Newell Collection, PLATE V, 5]; Babelon, p. 198, No. 1514; *Hunterian Collection* III, p. 108, Nos. 1 f.; *McClellan Collection* III, p. 345, No. 9353; Hermitage, p. 170, Nos. 731 f.; Mionnet V, p. 101, No. 883; Pellerin, Pl. XIII.

In addition there is, apparently unpublished:

10. ΦI AN Newell Collection [PLATE V, 6].

The second name of No. 9 has generally been read ΔH, but both the Yale and Newell specimens show that we have actually ΔIΦ. The Yale coin appears to read AΛEI, but I suspect this is merely careless die cutting. The I does not show on any of the other specimens. In cataloguing this piece I was forced to consider afresh the question of attribution to a place of striking.

Early guesses as to the mint based on an attempt to interpret the minor inscription were recognized to be futile by Pellerin and have not been revived. The whole list shows that we have to do here with a mint rarely used by Antiochus Grypus but springing into sudden prominence during the short reign of his eldest son. One naturally thinks of the need for funds when he

was raising an army to drive his uncle Antiochus IX from the throne at Antioch, and Cilicia is a likely quarter for such an assembling of forces. But the mint is certainly not Tarsus, for in 96/5 Antiochus IX was striking there (*N.C.*, 1919, Pl. XI, No. 5). We know that Seleucus had relations with the town of Mopsuestia, where he lost his life because of an attempt to raise money a second time (Josephus, *Ant.* XIII, 13, 4 [368]; cf. Eusebius [ed. Schoene] I, pp. 259–262), but there is nothing in the known coinage of that city that seems to have any connection with these issues. On the evidence of the palm or branch outside the inscription, Imhoof-Blumer assigned our silver to Seleucia-ad-Calycadnum, to which mint he attributed bronze with a similar but not identical palm (*Kleinasiatische Münzen*, p. 482, No. 7, Pl. XX, 22; he might have added a reference to the palm on *B.M.C. Cilicia*, p. 128, No. 1, Pl. XXIII, 3).

But a better candidate is Elaeusa-Sebaste, for we have from that mint two autonomous tetradrachms which display interesting parallels to those of Seleucus. The first, published by Babylon (*Inventaire Waddington*, No. 4703, Pl. XII, 16—wrongly printed 15; illustrated *B.M.C. Cilicia*, Pl. XL, 14), is as follows:

Bust of Tyche r., turreted. Fillet border.

*Rev.* ΕΛΑΙΟΥΣΙΩΝ / ΤΗΣ ΙΕΡΑΣ / ΚΑΙ / ΑΤΤΟΝΟΜΟΥ  
Female figure l. holding tiller. In field l., inside inscription AN; outside inscription ⌘ and aplustrum.

A second variety (*N.C.*, 1917, p. 20, Pl. II, 16) has ΙΣΙ inside the inscription, ⌘ outside. Since stylistically these autonomous tetradrachms are appropriate to the period, it is surely reasonable to associate the AN on them with the AN of our No. 10 and their ΙΣΙ with the ΙΣΙ of Nos. 4–8, particularly when they are found placed in this unusual way inside the main inscription. Even the monograms outside the autonomous inscription are reminiscent of that on No. 3. On the whole, it is safe to conclude

that Elaeusa was the chief mint of Seleucus VI while he was preparing for war, but that after his defeat and death at the hands of Antiochus X the town asserted and won its independence.

ALFRED R. BELLINGER

INDO-BACTRIAN COINS  
ACQUIRED BY  
THE AMERICAN NUMISMATIC SOCIETY IN 1947  
(SEE PLATE VI)

THE four rare tetradrachms and the drachm (PLATE VI, 1-4 and 5) were selected from a lot of Indo-Bactrian coins submitted for purchase by the well-known Indian firm in Rawalpindi. In a letter dated March 2, 1947, the coins were said to "have recently come from a hoard discovered in the village of Dheri Sheikan near Charsadda, District Peshawar." This is the precise find-spot of a hoard described by Gen. H. L. Haughton<sup>1</sup> as a "low but extensive mound near Utmanzai near Charsadda, the ancient Peukalaotis, the actual mound being called Shaikhano Dheri."

The coins figured in the photographs sent to the Society were tetradrachms of the following rulers: Heliokles, Antialkidas, Zoilos I Dikaïos, Menander, Agathokleia, Straton with Agathokleia, Straton, Amyntas, Diomedes, Philoxenos, Artemidoros, Hermaïos with Kalliope, and Hermaïos, and drachms of Agathokleia and Hermaïos. Also in the photograph was a Bactrian tetradrachm of Demetrios I, probably not part of the hoard.<sup>2</sup> In the Shaikhano Dheri Hoard of March, 1940, which will here be called Haughton's 1940 Hoard, all of the above Indo-Bactrian rulers were represented except Heliokles, Zoilos I, Agathokleia (dr.), Straton, and Artemidoros, but it included Antimachus II Nikephoros (drs.).

<sup>1</sup> "The Shaikhano Dheri Hoard, March, 1940," in *The Numismatic Chronicle and Journal of the Royal Numismatic Society* (1940), p. 123. Hereafter cited as *Num. Chron.*

<sup>2</sup> Haughton, Gen. H. L., "A Note on the Distribution of Indo-Greek Coins," in *Num. Chron.* (1943), p. 50. In this article Haughton states, "During the period 1903-1943 I can only record three or four purely Bactrian coins as having been, within my personal knowledge, found in British India."

This same mound was also the source from which came the remarkable hoard of tetradrachms which may be designated Whitehead's 1917 Hoard. When this connoisseur published it,<sup>3</sup> he had been informed by his Rawalpindi dealer that it came from the upper Kabul Valley, and the vicinity of Kabul was adopted by Whitehead as the probable exact locality. Much later, however, he learned that the coins were dug up "at or near Charsadda (Pushkalavati)."<sup>4</sup> This find is noted by Haughton<sup>5</sup> as follows: "and it was in the same mound that another important find of coins was made some 12-15 years ago—Whitehead, I believe, secured a good many of the coins then found."

Whitehead's 1917 Hoard of ninety-seven tetradrachms included all the rulers shown in the photograph sent to the Society in 1947 except Zoilos I, Menander, Agathokleia (dr.) and Artemidoros, but contained in addition Archebios and Peukalaos.<sup>6</sup> Whereas this hoard of tetradrachms only had not a single coin of Menander, the bulk of Haughton's 1940 Hoard of several hundred pieces, tetradrachms and drachms, was composed of Menanders.

Returning now to the Shaikhano Dheri 1947 Hoard,<sup>7</sup> that is, the sixteen coins seen in photograph by the writer, it is possible that eleven tetradrachms recently published in India belonged to our hoard.<sup>8</sup> For not only are Antialkidas, Menander, Amyntas, Diomedes, Philoxenos, Artemidoros, and Hermaios with Kaliope represented, but these pieces were bought by their owner, Mr. K. R. Coachman of Bombay, "about three years ago" from a Pathan who had collected them "in the North West Frontier Provinces" and "some appear to have been purchased from

<sup>3</sup> "Notes on Indo-Greek Numismatics," in *Num. Chron.* (1923), pp. 294 ff.

<sup>4</sup> "Notes on the Indo-Greeks," in *Num. Chron.* (1940), p. 108.

<sup>5</sup> *Num. Chron.* (1940), p. 123.      <sup>6</sup> *Num. Chron.* (1923), p. 315.

<sup>7</sup> This date is convenient, since the exact year is unknown.

<sup>8</sup> Altekar, Dr. A. S., "Some Rare Indo-Bactrian Coins," in *Journal of the Numismatic Society of India*, Vol. VIII (June, 1946, issued Mar., 1947).

Mr. Siri Chand," namely our correspondent in Rawalpindi. More important is the fact that seven of the ten different tetradrachms published by Altekar are issues identical with those in our hoard, while the other three are varieties. The eleventh piece in his lot is a duplicate of the owl tetradrachm of Menander, recently purchased for the Hindu University. The varieties are: Philoxenos, King on horseback on reverse, with diademed bust r. instead of helmeted l. javelin-thrusting; Philoxenos, same reverse, with helmeted bust l. javelin-thrusting, with two monograms; Diomedes, Dioskouroi on horseback on reverse, with helmeted bust r. instead of helmeted bust l. javelin-thrusting.

Another point deserving emphasis is the rarity of many of the coins, such as Zoilos (PLATE VI, 1), possibly unique; Antialkidas (PLATE VI, 2) against one in poor condition in the British Museum.<sup>9</sup> Another example from the same pair of dies and in the same fine condition was acquired in 1947 from the Gen. Haughton Collection by the Boston Museum. Others are Antialkidas, same reverse, but diademed bust; two specimens with new portrait type, one from the 1947 Hoard, one in Altekar's lot;<sup>10</sup> Agathokleia drachm (PLATE VI, 5), of which two worn examples were known to Whitehead in 1923;<sup>11</sup> Menander with owl reverse, two new specimens against three known in the Haughton Collection in 1943, also from the vicinity of Charsadda;<sup>12</sup> Artemidoros (PLATE VI, 3), two new specimens of helmeted head type; Hermaios with Kalliope, King on horseback on reverse (PLATE VI, 4), two new pieces against two first known in Whitehead's 1917 Hoard; drachm, Hermaios, King on horseback, Zeus enthroned on reverse, one new specimen against one in the British Museum.<sup>13</sup>

<sup>9</sup> *Num. Chron.* (1923), p. 326.      <sup>10</sup> Altekar, Dr. A. S., *op. cit.*, Pl. IV, 6.

<sup>11</sup> *Num. Chron.* (1923), p. 331.      <sup>12</sup> *Num. Chron.* (1943), p. 51.

<sup>13</sup> *Num. Chron.* (1923), p. 339, formerly Cunningham, *Num. Chron.* (1872), p. 168. For

Altekar's lot and the 1947 Shaikhano Dheri Hoard, therefore, contain similar coins and each group is noted for its rarities, but there is no information that Altekar's coins were found in a hoard. There is, however, every reason to suppose that they came from the same general locality, since Gen. Haughton tells us that, "The local people dig out from the mound earth for their sugar-cane fields."<sup>14</sup>

#### TETRADRACHM OF ZOILOS I DIKAIOS

1. ΒΑΣΙΛΕΥΣ ΔΙΚΑΙΟΥ ΖΩΙΛΟΥ Bust of Zoilos to r. wearing diadem and chlamys.

*Rev.* Prakrit inscription in Kharosthi characters, Maharajasa dhramikasa Jhoilasa, "King Zoilos, the Just," which is equivalent to the Greek of the obverse. Heracles nude standing facing wearing ivy wreath with tie-ends falling r. and l.; in extended r., a wreath; in lowered l., club upward; lion's skin falling from l. forearm, the head, forelegs, and tail represented in detail; ground line. Monogram  $\blacklozenge$ .

$\mathcal{R}$ . Indo-Bactrian tetradrachm. 9.42 gr. Possibly unique. PLATE VI, 1.

A tetradrachm of Zoilos Dikaïos is new, although drachms of the same types are known, some bearing the above monogram,<sup>15</sup> which occurs also on a square bronze coin of fine style having the Bust of Herakles in the lion's scalp on the obverse and a club and bow-in-case within an ivy wreath on the reverse.<sup>16</sup>

Coins of Zoilos mixed with coins of Apollodotos I, Antimachos II, and Menander have recently been unearthed in Ba-

a new tetradrachm with these types, *cf.* the Newell specimen in the collection of The American Numismatic Society, Newell, "Cyrene to India," *Numismatic Notes and Monographs*, No. 82 (1938), Pl. V, 55.

<sup>14</sup> *Num. Chron.* (1940), p. 123. *Cf. ibid.*, p. 100, Whitehead's statement that "India abounds in ancient sites marked by mounds which have survived to the present day as it is held that they are guarded from active disturbance by supernatural protection; the site yields an annual harvest of coins in the rains, and these coins are obtainable in the neighboring bazaars."

<sup>15</sup> American Numismatic Society, Newell Collection; here illustrated on PLATE I, A.

<sup>16</sup> *B. M. C.*, Pl. XXXII, 2.



jaur.<sup>17</sup> This hoard, like a much earlier deposit found in the same region, the Bajaur Hoard of 1926,<sup>18</sup> contained coins of these four kings exclusively. Both hoards were composed of drachms only, about a thousand in number, many being in mint condition. The drachms of Menander were the most numerous, while Zoilos was represented by a single specimen in the earlier hoard. Since Apollodotos I was one of the earliest kings of Northwest India, the two hoards indicate that Zoilos must be placed rather early. This supposition is supported by his reverse coin type, which is a copy of that of Euthydemus II, son of Demetrios I of Bactria.

The monogram, ♠, which is rare, occurs on a drachm of Menander<sup>19</sup> (PLATE VI, B), which probably should be assigned to an early position among his issues because the Fighting Athena figure on the reverse is executed in an individual and good style appropriate to an early issue. The style of Menander's portrait also points to an early date.

#### TETRADRACHM OF ANTIALKIDAS

2. ΒΑΣΙΛΕΥΣ ΝΙΚΗΦΟΡΟΥ ΑΝΤΙΑΛΚΙΔΟΥ Bust of Antialkidas to left, seen from rear, bareheaded and diademed, wearing aegis over left shoulder and thrusting with spear.


*Rev.* Prakrit inscription in Kharosthi letters, Maharajasa jayadharasa Atialikidasa, "King Antialkidas, the Victorious," which is equivalent to the Greek of the obverse. Zeus standing facing in front of an elephant walking to left; he is radiate, wears chiton and mantle and holds a scepter diagonally upward in left hand; the elephant is jubilantly parading with right foreleg raised, and trunk at the salute;<sup>19a</sup> on his head stands a small

<sup>17</sup> Haughton, Gen. H. L., *Num. Chron.* (1946), pp. 141-145.

<sup>18</sup> *Journ. As. Soc. of Bengal*, XXIII (1927), *Num. Suppl.*, XL, p. 18.

<sup>19</sup> American Numismatic Society, Newell Collection.

<sup>19a</sup> In India today, the war-elephant is trained to give the raised trunk salute. In a recent and most interesting newsreel, the Maharajah of Gwalior, while holding a review of his armed forces, was approached by three elephants, who raised their trunks to salute him.

Nike to l. holding wreath with long fillet in outstretched r.; around the elephant's neck is a bell suspended on a cord; the left ear and eye, tip of the right tusk and mouth are indicated with precision; his right rear leg shown between 'Zeus' legs is also advanced. Monogram .

.R. Indo-Bactrian tetradrachm. 9.35 g.

PLATE VI, 2.

This Zeus, who is probably to be regarded as marching along with the elephant, is the same god who is represented enthroned to front and accompanied by only the forepart of an elephant on the reverse of the unique tetradrachm of Antialkidas in London<sup>20</sup> and the square bronze coins of Eukratides.<sup>21</sup> Eukratides' coin type includes, as an accessory symbol, a small mountain of pyramidal shape, and is inscribed *Kavisiye nagara devata*, "City-deity of Kapisi."


From the accompanying symbols, elephant and mountain, the city-god of Kapisi has been identified with the elephant god of near-by Mt. Pilusara, the name of which is said to have been derived "from its presiding genius who had the form of an elephant."<sup>22</sup> It would seem more natural if the cult had had the following origin: Mt. "Pilosholo," Elephant Mountain, was so named because of its shape; the primary element would then have been the mountain god who was worshipped by primitive Indians, or Iranians, as in Greek lands. The god who inhabited this particular mountain or dwelt on its peaks had an elephant as his local symbol.<sup>23</sup> It seems possible that the monogram on

<sup>20</sup> B. M. C., *Bactria*, Pl. VII, 9.

<sup>21</sup> *Ibid.*, Pl. VI, 8, and *Num. Chron.* (1923), pp. 318-19, Pl. 14, 5, rev. only.

<sup>22</sup> Rapson, E. J., "Notes on Indian Seals and Coins; Tutelary Divinities of Indian Cities on Graeco-Indian Coins, I Kapisa," in *Journ. Royal As. Soc.* (1905), pp. 783 ff. See also the *Cambridge History of India*, Vol. I, p. 556. The source of our information is the account of the Chinese traveller, Hiuen Tsiang, who visited Kapisa in 630 A.D. He is quoted in the *Cambridge History of India*, Vol. I, p. 556, as follows: "To the southwest of the capital was the Pi-lo-sho-lo Mountain. This name was given to the mountain from its presiding genius who had the form of an elephant and was therefore called Pi-lo-sho-lo." (Watters, *On Yuan Chwang*, Vol. I, p. 129.)

<sup>23</sup> The modern Hindus, however, worship an elephant-headed god; hence it may be that

these coins of Eukratides, , unique in the Indo-Bactrian series and appearing on a type on which the mint is named, may be a true mint name to be resolved as M A, standing for Μητροπόλεως Ἀλεξανδρίας, "Alexandria the Capital." If this is correct, it furnishes conclusive proof of Tarn's carefully reasoned theory that Alexandria sub Caucaso, "Alexandria under the Caucasus" (Hindu Kush), the city founded by Alexander on his march to Bactria, and Kapisa, the older native Indian town, formed in later times a combined or double city; and that the mint, like the palace and governmental buildings, was in the Greek city.<sup>24</sup>

Eukratides' coin type presumably commemorated his capture of Alexandria-Kapisi, capital of the Paropamisadae, the territory below the Paropamisus, the Indian Caucasus, or Hindu Kush Mountains, especially since one of these issues was overstruck on a coin of Apollodotos I, his predecessor and opponent. The reverse type of Antialkidas' tetradrachm<sup>25</sup> doubtless celebrated his capture of the capital, for the seated Zeus holds Nike, and the elephant holds his trunk at salute, while Antialkidas is entitled "Nikephoros." This conclusion is further supported by the semi-Bactrian character of the coin, its Attic weight, Seleucid fillet border on the obverse, and inscription in Greek on the reverse. A hybrid issue like this is explicable on the assumption that it was struck after Antialkidas first got a foothold in India.

Subsequently, Antialkidas ruled in Taxila. This is attested by the inscription on an Indian monument, the stone pillar

the ancient Indian god of Mt. Pilusara "had the form of an elephant." During the recent Hindu-Moslem religious battles in Bombay, "thousands of Hindus observed the ceremony of carrying images of Ganesh, their elephant-headed God of Fortune, to the shore and casting them into the sea." *New York Herald Tribune* (1946).

<sup>24</sup> Tarn, *Greeks in Bactria and India*, Appendix 6.

<sup>25</sup> B. M. C., *Bactria*, Pl. VII, 9.

erected at Besnagar in the Gwalior state.<sup>26</sup> His tetradrachms of true Indo-Bactrian style and weight (PLATE VI, 2) with the martial obverse type and reverse with the Indian god of Kapisi as Zeus, marching in triumph with his elephant surmounted by Nike, may allude to the conquest of Taxila.

#### TETRADRACHM OF ARTEMIDOROS

3. ΒΑΣΙΛΕΩΣ ΑΝΙΚΗΤΟΥ ΑΡΤΕΜΙΔΩΡΟΥ Bust of Artemidoros to r. wearing a crested helmet on the bowl of which is a bull's horn and ear, a diadem whose tie-ends fall on his shoulders, a chlamys and a cuirass indicated on the right shoulder.

*Rev.* Prakrit inscription in Kharosthi characters, Maharajasa apatihataasa Atimitorasa, "King Artemidoros, the Invincible," which is equivalent to the Greek of the obverse. Artemis standing to l. shooting, her quiver slung across her back; she holds the bow in outstretched l. while drawing the bowstring and pointing the arrow with her r.; her hair is gathered in a knot on top of her head; she wears a short chiton with overfall, hunting boots, and a sash with long ends; ground line; l. monogram  $\Sigma$ .

$\mathcal{A}$ . Indo-Bactrian tetradrachm. 9.18 gr. PLATE VI, 3.

When Dr. Altekar published an identical specimen of this coin in the Coachman collection,<sup>27</sup> he did not at first feel sure that it was genuine because the portrait is so surprisingly realistic. After comparing this portrait with those on the tetradrachm with diademed bust,<sup>28</sup> the drachm with helmeted bust,<sup>29</sup> and the tetradrachm,<sup>30</sup> however, he concluded that Artemidoros is regularly represented with "a prominently protruding tip of the nose," and he was inclined to accept the piece as authentic. On a tetradrachm in mint condition<sup>31</sup> the king's nose is similarly rendered, though with less emphasis.

As to the curious appearance of the arms of Artemis on the

<sup>26</sup> *Cambridge History of India*, Vol. I, p. 558; Tarn, *op. cit.*, p. 313.

<sup>27</sup> *Journ. Num. Soc. of India* (1946), Pl. IV, 10.

<sup>28</sup> *B. M. C., Bactria*, Pl. XXXII, 3.


<sup>29</sup> *Ibid.*, Pl. XXXII, 4. <sup>30</sup> *Num. Chron.* (1923), Pl. XVII, 2.

<sup>31</sup> American Numismatic Society, Newell Collection, PLATE VI, c.

reverse, one sees after examination that her arms are not incorrectly placed, as on the tetradrachms on which she is holding the bow in her right and drawing the string with her left.<sup>32</sup> The die-cutter of the two new specimens succeeded in making a correct representation, and this is the way her arms are designed on the drachm<sup>33</sup> which, for this reason and because it has the helmeted bust on the obverse, belongs to the same issue as the two new tetradrachms which are marked with the same monogram. The reverse is of the coarse execution consistent with that found on the published coins of this king. (Cf. PLATE VI, c.) The genuineness of our specimen need not be questioned.

#### TETRADRACHM OF HERMAIOS WITH KALLIOPE

4. ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΥ ΚΑΙ ΚΑΛΛΙΟΠΗΣ Accolated busts of Hermaios with Kalliope to r., each diademed and draped.

*Rev.* Prakrit inscription in Kharosthi characters, Maharajasa tratarasa Heramayasa and Kaliyapaya, "King Hermaios Saviour (and) Kalliope." The king on prancing horse to r. wearing crested helmet, diadem, cuirass, kilt and boots; at his r. side, bow and arrow in case; straps around horse's shoulder and thigh. Monogram .

.R. Indo-Bactrian tetradrachm. 9.45 gr.

PLATE VI, 4.

The monogram is one which occurred frequently on tetradrachms of Straton alone, and was regularly used on those of Straton with Agathokleia, as well as on drachms of Agathokleia alone; it had also been used earlier by Heliokles.<sup>34</sup>

Newell thought that the tetradrachms of Hermaios alone with king on horseback as obverse type, reverse, Zeus seated,<sup>35</sup> were possibly the earliest issues of this king. If this is true, as seems probable, then the horseman type was relegated to the reverse

<sup>32</sup> B. M. C., *Bactria*, Pl. XXXII, 3; and *Catalogue of the Panjab Museum*, Lahore, Pl. VII, 551.

<sup>33</sup> B. M. C., *Bactria*, Pl. XXXII, 4.

<sup>34</sup> B. M. C., *Bactria*, Pl. VII, 5.

<sup>35</sup> *Numismatic Notes and Monographs*, No. 82 (1938), Pl. V, 55.

when the king decided to place the king and queen type on the principal side of his new issue. Kalliope's appearance on the coinage as queen with diadem has been interpreted to mean that when Hermaios married her she was already a princess in her own right. This is likely enough, but the assertion that she was related to Nikias<sup>36</sup> has no foundation. It seems to have been derived from a wrong deduction made by Tarn,<sup>37</sup> who said that Kalliope must have come from Hippostratos' kingdom "on the Jhelum" because the horseman reverse type of the king-and-queen coinage could have been imitated only from the horseman types used by Nikias and Hippostratos, since Hermaios had never used such a type before his marriage.

The tetradrachm published by Newell in 1938 was not known to Tarn, whose book was published in the same year, but a drachm of Hermaios with horseman obverse was published long ago.<sup>38</sup> New specimens of this class, a tetradrachm and a drachm, have now turned up in the Shaikhano Dheri Hoard seen in the photograph. They are of less fine workmanship than the Newell piece. The drachm bears the same monogram as the Newell tetradrachm, while the tetradrachm has ⬤, a fairly common monogram used by Menander, Diomedes, and the Saka king, Maues.

#### DRACHM OF AGATHOKLEIA


5. ΒΑΣΙΛΙΣΣΗΣ ΘΕΟΤΡΟΠΟΥ ΑΓΑΘΟΚΛΕΑΣ (*sic*), "Queen Agathokleia, the Godlike." Bust of Agathokleia to right wearing garment over her shoulders, chiton and necklace; hair combed forward from crown of head and ending in separate curls, two of which are discernible on her forehead, the others partly obscured by wear; at back of head, a veil or snood with its folds tied near the neck and its ends falling on shoulders.

*Rev.* Prakrit inscription in Kharosthi characters, Maharajasa tratarasa

<sup>36</sup> Bchofer, L., *On Greeks and Sakas in India*, p. 337.

<sup>37</sup> *Greeks in Bactria and India*, p. 337. See also n. 4 on this page, where Tarn wrote, "CHI p. 560; originally Cunningham's deduction."

<sup>38</sup> B. M. C., *Bactria*, p. 172, 2.

dhramikasa Stratasa, equivalent to Basileus Straton Soter Dikaïos, "King Straton, Saviour, the Just." Armed male figure, probably the king, advancing to right, bareheaded and diademed; r. arm extended; l. holding spear over l. shoulder and shield over l. arm; in military dress with boots, long cloak falling from shoulder and sword in sheath at waist; ground line. Monogram .

R. Indo-Bactrian drachm. 2.56 gr.

PLATE VI, 5.

The die-cutter, in finishing the Greek inscription, found that he had not sufficient space for the I and A in Agathokleia's name and combined them in a ligature (PLATE VI, 5, enlargement). On the earliest specimen known<sup>39</sup> ΔΙ in ΒΑΣΙΛΙΣΣΗΣ was omitted and Α then engraved over the first Σ. On a tetradrachm with the combined portraits of Straton and Agathokleia from the Shaikhano Dheri 1947 Hoard, the cutting of the final syllables of Agathokleia's name was also bungled.

This is the first well-preserved specimen of the drachm to be published,<sup>40</sup> and from it the details of Agathokleia's coiffure are now clear. Furthermore, we can now be sure that the queen wears no diadem on this denomination (*cf.* PLATE VI, 5). On the fine tetradrachm in the Shaikhano Dheri 1947 Hoard, the absence of a diadem is again certain. The hair on the forehead consists of four locks ending in curls, two above, two below. Other examples of the tetradrachm with the accolated busts show varied arrangements of the curly locks which when somewhat worn give the appearance of a diadem above a row of curls, but the presence of a diadem is unlikely in view of the *fleur de coin* condition of the tetradrachm noted above. If we compare the coiffure of Kalliope on the tetradrachms on which her portrait is combined with that of Hermaïos (PLATE VI, 4), we see two rows of

<sup>39</sup> Rapson, E. J., "Coins of Graeco-Indian Sovereigns," in *Corolla Numismatica*, p. 248, Pl. XII, 4; *Num. Chron.* (1923), Pl. XVI, 6.

<sup>40</sup> Another fine one is in the British Museum, *cf. Catalogue of the Panjab Museum*, Lahore, p. 53.

three curls each, and above that a diadem represented by two lines.

It has been generally accepted that Agathokleia was the mother, not the wife, of Straton.<sup>41</sup> This is confirmed by Straton's youthful appearance not only on the tetradrachms with their combined portraits, but also on new specimens of Straton's succeeding fully independent tetradrachms bearing only his portrait and name.<sup>42</sup>

Since Agathokleia used the Fighting Athena as her constant reverse type for tetradrachms, it is reasonable to assume that as queen-regent for Straton she adopted the reverse type of the king from whom her power was derived. If this is correct, the king can only have been Menander, who used this device on all of his tetradrachm issues except those with the owl, a symbol of Athena. Hence there is nothing farfetched in the conjecture<sup>43</sup> that she was Menander's widow and became regent for her son, Straton, during his minority.

From her name it has been thought that Agathokleia was related to the royal family of Bactria, as sister perhaps of Agathokles, son of Demetrius. This conclusion is supported by the fact that on the square bronze coins issued in the names of Agathokleia and Straton, but bearing only her portrait helmeted like an Athena, she used as reverse type Herakles seated on a rock,<sup>44</sup> which was regularly employed by Euthydemus, father of Demetrius. The unusual epithet, Theotropos, "Godlike," borne by Agathokleia, has been imagined to show some connection with Euthydemus,<sup>45</sup> who was called Theos, "Divine," on the Pedigree tetradrachms struck by Agathokles and Antimachus I.

The monogram on our drachm may be a modification or vari-

<sup>41</sup> Rapson, E. J., *op. cit.* in *Corolla Numismatica*, pp. 248 ff.

<sup>42</sup> See, for example, *Num. Chron.* (1923), Pl. XV, 8.

<sup>43</sup> Tarn, *Greeks in Bactria and India*, pp. 225 ff.      <sup>44</sup> *B. M. C., Bactria*, Pl. XI, 6.

<sup>45</sup> Cunningham, *Num. Chron.* (1870), p. 218. See also an idea elaborated by Rapson, *Cor. Num.*, p. 249.



ety of that found on the tetradrachm of Antialkidas (PLATE VI, 2). It was used invariably on all the tetradrachms struck by Agathokleia as queen-regent, and appeared on those of Straton as a very young man.

AGNES BALDWIN BRETT

### ADDENDA

This article was in press when the *Numismatic Chronicle* for 1947, containing Whitehead's "Notes on the Indo-Greeks, Part II," was received. After studying the fine specimen of Eukratides' bronze issue in the British Museum Collection, p. 30, Fig. 1, Whitehead concludes that the "city-deity of Kapisi" was a city-goddess with mural crown. If this proves correct, as seems probable, Antialkidas' seated Zeus can no longer be derived from Eukratides' coin type.

Whitehead's account of the recent hoards found near Charsadda implies that our coins and those published in the *Journal of the Numismatic Society of India*, 1946, came from another mound in the vicinity of Charsadda called Lal Dheri. In that case, our "Shaikhano Dheri 1947 Hoard" should be called the "Lal Dheri 1944 Hoard."

Whitehead illustrates tetradrachms of Zoilos, Antialkidas and Artemidoros identical with our specimens, and of other kings known to us from the hoard; also of Epander, for whom no tetradrachm has previously been known.



ROMAN AND BYZANTINE COINS  
ACQUIRED BY  
THE AMERICAN NUMISMATIC SOCIETY IN 1947  
(SEE PLATES VII–XI)

THE Museum acquired over twelve hundred Roman and Byzantine coins during 1947. Of these over half, chiefly Roman denarii but including Roman gold and bronze, were presented by W. B. O. Field. Mr. H. W. Bell's impressive gift of early Byzantine coins in 1946 was rivalled in 1947 by his presentation to the Museum of the remainder of his gold and silver Byzantine and related coinages. In addition to this gift, Mr. Bell turned over to us, just before his death in August, a miscellaneous lot of coins including Roman and Byzantine bronzes. Below we publish a selection of coins from these and other gifts, and from our purchases.<sup>1</sup> The greater part of the coins selected for listing are not published in the major catalogues or are varieties of coins in these catalogues; the rest are outstanding for condition, or are considered worthy of publication for another special reason, *e.g.*, they belong to a series not often illustrated.

A word may be said about the dates in the list. The Republican denarii have been given the dates assigned in Grueber's *Coins of the Roman Republic in the British Museum*. Roman imperial coins have been given the dating indicated in Mattingly's *Coins of the Roman Empire in the British Museum*, and for the period of Severus Alexander (nos. 51a and 52), Mattingly and Sydenham's *Roman Imperial Coinage*. For the latter part of

<sup>1</sup> The largest single purchase consisted of selections from the Sir W. M. Flinders Petrie Collection. I should like to take this opportunity to express appreciation to Miss Doris Taylor, now Fellow of the American Academy in Rome, for assistance during the summer of 1947 in the work on the Greek and Roman coins of this purchase.

the third century and the fourth century, dates of the reign are used. In the Byzantine series, dates of the total reign are supplemented by annual dates of the reign for dated coins. An asterisk following the number of a coin indicates that an illustration of the piece will be found in the plates at the end of this volume.

- 1.\* L. CORNELIUS SCIPIO ASIAGENUS (91 B.C.). Rome.  $\mathcal{A}$ . Denarius. Var. B.M.C. 1374-1380.  
*Obv.* •N in front of head.  
 $\nearrow$  20.5 mm. 3.77 grms. *Field Collection.*
- 2.\* L. APPULEIUS SATURNINUS (90 B.C.). Rome.  $\mathcal{A}$ . Denarius. Var. B.M.C. 1493-1522.  
*Rev.*  $\mathcal{A}$ . •T• above horses.  
 $\nearrow$  19 mm. 3.74 grms. *Field Collection.*
- 3.\* L. APPULEIUS SATURNINUS (90 B.C.). Rome.  $\mathcal{A}$ . Denarius. Var. B.M.C. 1502 and Sambon-Canessa Sale Cat. Nov. 18, 1907 (Martinetti), lot 910.  
*Rev.* •E above horses.  
 $\downarrow$  18.5 mm. 3.85 grms. *Field Collection.*
- 4.\* L. APPULEIUS SATURNINUS (90 B.C.). Rome.  $\mathcal{A}$ . Denarius. Var. B.M.C. 1508-9.  
*Rev.* :K above horses.  
 $\leftarrow$  19 mm. 3.74 grms. *Field Collection.*
- 5.\* P. VETTIUS SABINUS (90 B.C.). Rome.  $\mathcal{A}$ . Quinarius. Var. B.M.C. 1564-1580.  
*Obv.* and *Rev.* L.  
 $\nwarrow$  15 mm. 1.76 grms. *Field Collection.*
6. P. VETTIUS SABINUS (90 B.C.). Rome.  $\mathcal{A}$ . Quinarius. Var. B.M.C. 1564-1580.  
*Obv.* and *Rev.* P  
 $\leftarrow$  15 mm. 1.85 grms. *Field Collection.*
- 7.\* C. FABIVS (90 B.C.). Rome.  $\mathcal{A}$ . Denarius. Var. B.M.C. 1581-1590.  
*Obv.* † behind head.  
 $\uparrow$  21 mm. 3.76 grms. *Field Collection.*
- 8.\* C. FUNDANIUS (89 B.C.). Rome.  $\mathcal{A}$ . Quinarius. Var. B.M.C. 1698.  
*Obv.* H behind head of Jupiter.  
 $\nearrow$  15 mm. 1.85 grms. *Field Collection.*
- 9.\* D. JUNIVS SILANVS (88 B.C.). Rome.  $\mathcal{A}$ . Denarius. Var. B.M.C. 1790-1793.  
*Obv.* G behind head.  
*Rev.* XIII above horses.  
 $\downarrow$  19 mm. 3.75 grms. *Field Collection.*

- 10.\* D. JUNIUS SILANUS (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 1820.  
*Obv.* P behind head.  
*Rev.* XXX above horses.  
 ↙ 17 mm. 4.05 grms. *Field Collection.*
11. D. JUNIUS SILANUS (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 1829-1831.  
*Obv.* S behind head.  
*Rev.* XVIII above horses.  
 ↗ 17 mm. 3.72 grms. *Field Collection.*
12. D. JUNIUS SILANUS (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 1831.  
*Obv.* S behind head.  
*Rev.* XXIX above horses.  
 ↑ 18 mm. 3.87 grms. *Field Collection.*
13. L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 1900-1936.  
*Obv.* ↓XVI behind head.  
*Rev.* XXCII above rider.  
 → 19 mm. 4.04 grms. *Field Collection.*
- 14.\* L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 1900-1936.  
*Obv.* CVII.  
*Rev.* CXVIII.  
 → 19.5 mm. 3.84 grms. *Field Collection.*
- 15.\* L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 1963.  
*Obv.* Bow behind head.  
*Rev.* ↓XXXX below moneyer's name.  
 ↑ 20 mm. 3.77 grms. *Field Collection.*
- 16.\* L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 2009-2024.  
*Obv.* G in front of head; behind head, X or wreath.  
*Rev.* Caduceus above rider; F below moneyer's name.  
 ↖ 18 mm. 3.81 grms. *Field Collection.*
- 17.\* L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 2009-2024.  
*Obv.* Trident behind head; A below chin.  
*Rev.* Caduceus above rider; H below moneyer's name.  
 ↗ 19 mm. 4.02 grms. *Field Collection.*
18. L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. Æ. Denarius. Var. B.M.C. 2067-2069.  
*Obv.* H below chin.  
*Rev.* I above horseman; . below forelegs.  
 ↙ 18 mm. 4.05 grms. *Field Collection.*

19. L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2067-2069.  
*Obv.* Γ below chin.  
*Rev.* N• above rider.  
 ✓ 19 mm. 3.74 grms. *Field Collection.*
20. L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2070-2084.  
*Obv.* I behind head; D below chin.  
*Rev.* 3? above rider.  
 ✓ 18 mm. 3.82 grms. *Field Collection.*
- 21.\* L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2107-2112.  
*Obv.* : behind head; V below chin.  
*Rev.* I• above rider.  
 ✓ 18.5 mm. 3.72 grms. *Field Collection.*
- 22.\* L. CALPURNIUS PISO FRUGI (88 B.C.). Rome. *Æ*. Denarius. A classification not listed in B.M.C.; symbol and fractional sign on obverse, numeral on reverse.  
*Obv.* Anchor and •• behind head.  
*Rev.* ↓XXIII below moneyer's name.  
 ✓ 19 mm. 3.73 grms. *Field Collection.*
- 23.\* C. VIBIUS PANSA (87 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2244-2279.  
*Obv.* Crayfish below chin.  
 ✓ 18 mm. 3.70 grms. *Field Collection.*
24. L. TITURIUS SABINUS (87 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2330-2343.  
*Rev.* Bow in exergue.  
 ↑ 20 mm. 3.68 grms. *Field Collection.*
25. L. JULIUS BURSIO (85 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2485-2507.  
*Obv.* Round shield behind trident (shield among Babelon's drawings of symbols, vol. II, p. 7).  
 ↓ 19.5 mm. 3.64 grms. *Field Collection.*
26. L. JULIUS BURSIO (85 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2508-2511.  
*Obv.* Scepter behind trident.  
*Rev.* III below horses.  
 ✓ 22 mm. 3.89 grms. *Field Collection.*
- 27.\* P. CREPUSIUS (83 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2669-2672.  
*Obv.* T behind head; gouge across letter to tip of scepter.  
*Rev.* CCCCCI along rim in l. field.  
 ← 22 mm. 3.67 grms. *Field Collection.*

28. C. MAMILIUS LIMETANUS (83 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2716.  
*Obv.* *Æ*, above and along line of Mercury's cap, in l. field.  
 $\swarrow$  21 mm. 3.95 grms. *Field Collection.*
- 29.\* Q. ANTONIUS BALBUS (82 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2730-2749.  
*Obv.* H below chin.  
 $\searrow$  20 mm. 3.8 grms. *Field Collection.*
30. Q. ANTONIUS BALBUS (82 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2750-2769.  
*Rev.* L below horses.  
 $\searrow$  18.5 mm. 3.68 grms. *Petrie Collection. Purchase.*
31. C. MARIUS CAPITO (82 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2844-2852.  
*Obv.* XX.  
*Rev.* XX.  
 $\searrow$  19 mm. 3.79 grms. *Field Collection.*
- 32.\* C. POBLICIUS (81 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 2896-2915.  
*Obv.* M resting on edge of helmet.  
*Rev.* M, inverted, touching lion's back.  
 $\rightarrow$  20 mm. 3.9 grms. *Field Collection.*
- 33.\* TI. CLAUDIUS (80 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 3114-3141.  
*Rev.* A·IIII.  
 $\swarrow$  19 mm. 3.79 grms. *Field Collection.*
34. TI. CLAUDIUS (80 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 3114-3141.  
*Rev.* A·CVIII.  
 $\downarrow$  20 mm. 3.33 grms. *Field Collection.*
35. L. FARSULEIUS MENSOR (75 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 3293-3305, and p. 403, note 1.  
*Rev.* CT.  
 $\searrow$  19 mm. 3.74 grms. *Field Collection.*
36. L. COSSUTIUS SABULA (74 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 3322; a specimen in Naville Sale Cat. XVII (Oct. 3, 1934), lot 1041.  
*Rev.* IX.  
 $\swarrow$  17.5 mm. 3.78 grms. *Field Collection.*
37. C. CALPURNIUS PISO (64 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 3661.  
*Obv.* P behind head.  
*Rev.* A below moneyer's name.  
 $\downarrow$  19 mm. 3.66 grms. *Field Collection.*

- 38.\* M. AEMILIUS SCAURUS, P. PLAUTIUS HYPSAEUS (58 B.C.). Rome. *Æ*. Denarius. Var. B.M.C. 3877.  
*Obv.* Extraordinarily high relief.  
 ↘ 18.5 mm. 3.67 grms. *Purchase.*
- 39.\* NERO (64–66 A.D.). Lugdunum. *Æ*. Semis. Var. B.M.C. 396.  
*Obv.* Head r.  
*Rev.* Legend division: QVI NQ.  
 ↙ 22 mm. 6.11 grms. *Petrie Collection. Purchase.*
- 40.\* VESPASIAN (72 A.D.). Lugdunum. *Æ*. Sestertius. Var. B.M.C. p. 202 $\frac{1}{2}$ .  
*Rev.* Two shields behind cuirass on which Roma sits.  
 ↙ 35 mm. 22.51 grms. *Field Collection.*
- 41.\* DIVUS VESPASIANUS (80–81 A.D.). Rome. *Æ*. Aureus. See B.M.C. p. 243, note to 112; *cf.* C. (Vesp.) 143.  
*Rev.* Victory standing l. placing shield on trophy.  
 ↘ 19 mm. 7.26 grms. *Field Collection.*
- 42.\* DOMITIAN (84 A.D.). Rome. *Æ*. As. Var. B.M.C. 291; *cf. Num. Chron.* 1940, Pl. XVI, 5; another (rare) altar type of COS X; also *Num. Chron.* 1926, p. 328, 20.  
*Obv. leg.* DOMIT, as C. 413.  
 ↓ 27.5 mm. 9.46 grms. *Field Collection.*
- 43.\* DOMITIAN (85 A.D.). Rome. *Æ*. Dupondius. Var. B.M.C. 312; without aegis, C. 639; Egger Sale Cat. 43 (1913), 695; Hess Sale Cat. May 9, 1932, 640.  
*Obv.* No aegis.  
 ↓ 28 mm. 12.69 grms. *Field Collection.*
- 44.\* NERVA (98 A.D.). Rome. *Æ*. Dupondius, *cf.* Sestertius and As, B.M.C. p. 27, \* and II.  
 ↓ 27 mm. 14.71 grms. *Field Collection.*
45. HADRIAN (134–138 A.D.). Rome. *Æ*. Denarius. G. Nicodemi (Comune di Milano. Catalogo delle Raccolte Numismatiche II. Le Monete dell'Impero Romano da Adriano ad Elio Cesare, Milano, 1940), 3220; Ball Sale Cat. VI (Feb. 9, 1932), lot 1341; Cahn Sale Cat. 61 (Dec. 3, 1928), lot 859. Var. B.M.C. 645 ff.  
*Obv.* Bust laureate r., drapery on l. shoulder.  
 ↓ 18 mm. 2.84 grms. *Field Collection.*
- 46.\* HADRIAN (119–138 A.D.). Rome. *Æ*. Dupondius. Var. B.M.C. 1458 ff. and Strack 841.  
*Obv.* Head bare r., bust draped.  
*Rev.* Galley to l., Triton blowing horn on prow; standard in stern; five rowers. FELICITATI/AVG above, not around rim. Below, COS III PP.  
 ↑ 27 mm. 13.5 grms. *Field Collection.*



47. HADRIAN (119-138 A.D.). Rome. Æ. Sestertius. Var. B.M.C. 1555 and Strack 686.  
*Obv.* Head laur. r., slight drapery on both shoulders.  
 ↓ 32 mm. 20.31 grms. *Field Collection.*
- 48.\* ANTONINUS PIUS (140-143 (and 144?) A.D.). Rome. Æ. Dupondius. Same dies as Strack Pl. X, 833. Var. B.M.C. 1341.  
*Obv.* Drapery on l. shoulder.  
*Rev.* Head of Genius l.  
 ↓ 26 mm. 11.85 grms. *Field Collection.*
- 49.\* ANTONINUS PIUS (147-148 A.D.). Rome. Æ. As. Cf. B.M.C. 1840 and Strack 1025: TRP XII.  
*Obv.* TRP XI.  
 ↑ 27 mm. 12.10 grms. *Petrie Collection. Purchase.*
- 50.\* M. AURELIUS under ANTONINUS PIUS. Rome. Æ. As. Cf. dupondius, B.M.C. p. 291, 1796 ff. and Strack 956. A specimen in S. Rosenberg Sale Cat. LXXII (June 11, 1932), lot 1253.  
*Obv.* Bust draped, head bare r. AVRELIVS CAE SARAVGPIIFCO-SII.  
*Rev.* Within oak-wreath, I V/VE . N/T VS/SC.  
 ↑ 27 mm. 8.15 grms. *Field Collection.*
- 51.\* COMMODUS (186 A.D.). Rome. Æ. Aureus. Cf. C. 496 (patra and wreath)=B.M.C. p. 723† (but C. 496=B.M.C. *obv.* "e").  
*Rev.* Victory seated l., patra in r., palm in l.  
 ↓ 20 mm. 7.12 grms. *Field Collection.*
- 51a.\* SEVERUS ALEXANDER (222-231 A.D.). Rome. Æ. As. Cf. sestertius, M.S. 547.  
 ↑ 25 mm. 10.15 grms. *Field Collection.*
- 52.\* JULIA MAEAEA (229-230 A.D.). Æ. Denarius. M.S. 341; C. 32.  
 ↑ 20 mm. 3.73 grms. *Purchase.*
- 53.\* GORDIAN III (238-244 A.D.). Rome. Æ. Aureus. Var. C. 129.  
*Obv.* Bust laur. dr. cuir. r.  
*Rev.* Single cornucopiae.  
 ↓ 20 mm. 4.51 grms. *Field Collection.*
- 54.\* VALERIAN (253-259 A.D.). Lugdunum. Æ. Antoninianus. Var. M.S. 13.  
*Obv.* Bust radiate, dr. cuir. r.  
*Rev.* Sol holds whip.  
 ↓ 22 mm. 4.00 grms. *Petrie Collection. Purchase.*
55. GALLIENUS (253-268 A.D.). Rome. BI. Antoninianus. Var. M.S. 165 and C. 77.  
*Obv.* Bust dr.  
*Rev.* Griffin walking l.  
 ↓ 22.5 mm. 3.97 grms. *Petrie Collection. Purchase.*

56. GALLIENUS (253–268 A.D.). Rome. BI. Antoninianus. Var. M.S. 330.  
*Obv. legend: GALLIENVS AVG.*  
 ↑ 21 mm. 3.06 grms. *Petrie Collection. Purchase.*
57. GALLIENUS (253–268 A.D.). Mediolanum. BI. Var. M.S. 499. C. 727.  
*Rev. PAX A[V]G. S in l. field.*  
 ↑ 21.5 mm. 3.14 grms. *Petrie Collection. Purchase.*
58. SALONINUS (256 A.D.). Antioch. BI. Antoninianus. Var. M.S. 36. C. 95.  
 Voetter, *Num. Zeitschr.* 1908, Pl. VII, 18.  
*Rev. No wreath, etc.*  
 ↓ 21 mm. 3.47 grms. *Petrie Collection. Purchase.*
- 59.\* AURELIAN (270–275 A.D.). Antioch. *AV.* Aureus. M.S. 380; Hess Sale Cat. 207 (Dec. 1931), lot 1291; Cahn Sale Cat. 47 (May 17, 1922), lot 992. Var. C. 280.  
*Obv. Bust laur. cuir. r. (front view); AVRELIA NVSAVG.*  
 ↑ 20 mm. 5.00 grms. *Field Collection.*
- 60.\* TACITUS (275–276 A.D.). Rome. *AV.* Aureus. Var. C. 119; Hamburger Sale Cat. (Oct. 19, 1925), lot 1539.  
*Obv. Bust laur. dr. cuir. r. IMPCMCLTACITVSPAVG. First "T" of "Tacitus" cut over an original "L."*  
 ↑ 22 mm. 4.65 grms. *Field Collection.*
- 61.\* CONSTANTIUS II (337–361 A.D.). Antioch. *AV.* Solidus. Var. C. 243.  
*Mint-mark: SMANA.*  
 ↓ 21.5 mm. 4.01 grms. *Field Collection.*  
 In the Newell Collection there is a specimen of distinct style with mint mark SMANB • (Hirsch Sale Cat. XXII, Nov. 25, 1908, lot 244).
- 62.\* DELMATIUS (335–337 A.D.). Constantinople. *Æ.* C. 6.  
 ✓ 17 mm. 1.55 grms. *Petrie Collection. Purchase.*
63. VALENTINIAN III (425–455 A.D.). Ravenna. *AV.* Solidus. C. 19.  
 ↓ 22 mm. 4.26 grms. *Field Collection.*

## VANDALS

- 64.\* TRASAMUND (496–523 A.D.). *AV.* Solidus. Var. B.M.C. *Vand.* p. 10, 1.  
 Imitation of Anastasius.  
*Rev. VICTORI AAVGGGS.*  
 ↓ 20.5 mm. 4.41 grms. *Bell Collection.*

## OSTROGOTHS

- 65.\* THEODORIC (493–526 A.D.). Ravenna. *AV.* Tremissis. Var. B.M.C. p. 47, 5 ff.  
*Rev. No star.*  
 ↓ 15 mm. 1.45 grms. *Bell Collection.*

BYZANTINE

66. JUSTINIAN I (527-565 A.D.). Rome. Æ. 10 nummia. Var. B.M.C. *Vand.* p. 112, 34.  
*Obv. legend:* No P before AVG.  
 ↑ 19 mm. 4.75 grms. *Petrie Collection. Purchase.*
- 67.\* JUSTIN II (565-578 A.D.). Constantinople. Æ. 40 nummia. Yr. 5 (569-570 A.D.). A variant (Christian monogram above M instead of cross) in Ratto Sale Cat. (Dec. 9, 1930), lot 792. Cf. also B.M.C. 41 ff.  
*Rev.* Officina A.  
 ✓ 30 mm. 10.28 grms. *Field Collection.*
68. TIBERIUS II (578-582 A.D.). Antioch. Æ. 40 nummia. Yr. 8 (581-582 A.D.). Not in B.M.C., cf. 102, note.  
*Rev.* Square M; officina B.  
 ✓ 30 mm. 10.4 grms. *A. Stratton Gift.*
69. PHOCAS (602-610 A.D.). Antioch. Æ. 20 nummia. Tolstoi 158; cf. B.M.C. 116 (yr. 4).  
*Rev.* Yr. 5 (606-607 A.D.).  
 ↑ 22 mm. 4.10 grms. *Petrie Collection. Purchase.*
70. HERACLIUS, HERACLIUS CONSTANTINE, and MARTINA. Constantinople. Æ. 40 nummia yr. 6 (615-616 A.D.). Cf. B.M.C. 170.  
*Rev.* Officina A.  
 ✓ 31 mm. 8.55 grms. *Field Collection.*
71. BASIL I and CONSTANTINE (869-879 A.D.). Constantinople. Æ. Var. B.M.C. 11-16.  
*Obv. legend ends* **CONTA456**.  
 ✓ 28 mm. 5.52 grms. *Petrie Collection. Purchase.*
72. BASIL I, CONSTANTINE, and LEO VI (870-879 A.D.). Constantinople. Æ. Var. B.M.C. 26.  
*Rev.* No \* at end of inscription.  
 ↓ 30 mm. 9.49 grms. *Petrie Collection. Purchase.*
73. NICEPHORUS III (1078-1081 A.D.). Constantinople. Æ. Cf. EL. B.M.C. 10-11.  
 ↓ 32 mm. 4.15 grms. *Petrie Collection. Purchase.*
- 73a.\* JOHN II (1118-1143 A.D.). Constantinople. Æ. Not in B.M.C.; cf. *Num. Chron.*, ser. 5, vol. XIV (1934), p. 47; described more fully in Spink's *Num. Circ.*, vol. XXVII (1919), p. 254.  
*Obv.* Bust of John II bearded, facing, wearing crown with cross and jewelled robe, holding in r., labarum, in l., globus cruciatus. To l., around rim +IW; to r., around rim, uncertain letters, AN(?).  
*Rev.* St. Demetrius, nimbate, holding spear in r., shield in l. To l., in field O/Δ/MH (*sic!*)/H; to r., T/PI/OC.  
 ↓ 18 mm. 2.5 grms. *Petrie Collection. Purchase.*

This coin is to be noted for the representation of St. Demetrius; *cf.* *B.M.C.* Introd., pp. xlvii, lxi, lxx. According to Wroth, Demetrius was placed on the coinage for the first time by John's son, Manuel I.

In the Newell Collection there is a similar coin with bust of Emperor on *obv.* and bust of Virgin on *rev.*; a label in the handwriting of the late Mr. Newell reads "Variety not in *B.M.C.* John II?"

- 74.\* MANUEL I (1143-1180 A.D.). Constantinople. EL. *Cf.* *B.M.C.* 25-26 and Glendining Sale Cat., March 1931, lot 699.

*Obv.* MP instead of M.

↓ 34 mm. 4.29 grms.

*Bell Collection.*

75. MANUEL I. Constantinople. EL. *Cf.* *B.M.C.* 29.

*Obv.* Nimbus has five dots.

↓ 30 mm. 3.99 grms.

*Bell Collection.*

76. ANDRONICUS II and MICHAEL IX (1295-1320 A.D.). Constantinople. *AV.* *Cf.* *B.M.C.* 13 ff.

*Rev.* To l. of Virgin, K; to r., N.

↓ 25 mm. 4.11 grms.

*Bell Collection.*

- 77.\* ANDRONICUS II and MICHAEL IX. Constantinople. *AV.* *Cf.* *B.M.C.* 19.

*Rev.* To l. of Virgin *Θ*; to r. *ϙ*.

↓ 26.5 mm. 3.89 grms.

*Bell Collection.*

- 78.\* MANUEL II (1391-1423 A.D.). *AR.* *Cf.* *B.M.C.* 3-10. Notable for state of preservation of *obv.* legend.

↓ 22 mm. 3.54 grms.

*Bell Collection.*

#### THESSALONICA

79. THEODORE (1222-1230 A.D.). Gilt *AR* (scyphate). Var. *B.M.C.* *Vand.* p. 194-5, 1-2.

*Α*, not *Δ* on cross held by Theodore and Demetrius.

↓ 32 mm. 3.67 grms.

*Bell Collection.*

#### NICAIA

- 80.\* JOHN I (III) (1222-1254 A.D.). *AV.* Nomisma (pressed flat). *Cf.* *B.M.C.* *Vand.* p. 210-213.

*Rev.* Above throne in r. field, 8-point star.

↓ 29 mm. 4.23 grms.

*Bell Collection.*

- 81.\* JOHN I (III). Similar (scyphate).

*Obv.* Dot in r. field.

*Rev.* Lines of cross on *nimbus cruciger* are diagonal. Five dots on book of gospels, and one dot in r. field above throne.

↓ 29 mm. 4.23 grms.

*Bell Collection.*

- 82.\* THEODORE II (1254-1258 A.D.). *AV.* Nomisma (flat). Var. *B.M.C.* *Vand.* p. 220, 1-2.

*Rev.* Above throne of Christ on r.  $\Lambda$  with no crossbar for A, as in B.M.C.  
 ↓ 27 mm. 4.13 grms. *Bell Collection.*

TREBIZOND

83.\* MANUEL I (1238–1263 A.D.). *Æ.* Asper. Var. B.M.C. *Vand.* p. 253, 92.  
*Obv.* Four pellets, no cross; no pellets in r. field.  
 ↓ 21 mm. 2.8 grms. *Bell Collection.*

84. MANUEL I. *Æ.* Asper. Not in B.M.C. *Vand.*  
*Obv.* Dot on shaft of cross; two dots placed diagonally (lower dot to left of upper) under l. arm.  
 ↓ 21 mm. 2.86 grms. *Bell Collection.*

85. MANUEL I. *Æ.* Asper. Not in B.M.C. *Vand.*  
*Obv.* Three dots to r. of labarum, three to r. of labarum shaft, above Manuel's arm, one dot to r. of lower end of shaft of labarum.  
*Rev.* Low in l. field, between shaft of cross and St. Eugenius, eight-point star.  
 ↓ 22.5 mm. 2.78 grms. *Bell Collection.*

86. JOHN II (1280–1297 A.D.). *Æ.* Asper.  
*Obv.* Tunic with lozenges and dots. Sash with five dots. Low in r. field, B.  
*Rev.* Dot on shaft of cross; low in l. field, between shaft of cross and St. Eugenius, B ? partly off flan.  
 ↓ 22 mm. 2.82 grms. *Bell Collection.*

87.\* JOHN II (1280–1297 A.D.). *Æ.* Asper. Imitation. See B.M.C. *Vand.* p. 272, note 1.  
 ↓ 23 mm. 1.70 grms. *Bell Collection.*

88.\* ALEXIUS II (1297–1330 A.D.). *Æ.* Asper. Cf. B.M.C. *Vand.* p. 281, 8–9.  
 ↙ 22 mm. 2.55 grms. *Bell Collection.*

PLATED COINS

- a. M. PORCIUS CATO (150–125 B.C.). Italy. *Æ.* Denarius. B.M.C. 461.  
 ← 17 mm. 2.30 grms. *Field Collection.*
- b. M AEMILIUS LEPIDUS (91 B.C.). Italy. *Æ.* Denarius. B.M.C. 590.  
 ← 19 mm. 2.8 grms. *Petrie Collection. Purchase.*
- c. AUGUSTUS. Moneyer, C. Marius Tro. (13 B.C.). Rome. *Æ.* Denarius. Cf. B.M.C. 108.  
 ↓ 17 mm. 2.92 grms. *Petrie Collection. Purchase.*
- d. AUGUSTUS (19–16 or 15 B.C.). Uncertain Spanish Mint. *Æ.* Denarius. B.M.C. 397 C. 78.  
 ↑ 19 mm. 2.86 grms. *Field Collection.*
- e. AUGUSTUS (15–12 B.C.). Lugdunum. *Æ.* Denarius. B.M.C. 451 C. 78.  
 ↑ 18 mm. 2.65 grms. *Field Collection.*

- f. DIVA FAUSTINA. Rome.  $\mathcal{R}$ . Denarius. Hybrid (*rev.* of Ant. Pius: *Genio Senatus*).  
↓ 18 mm. 2.56 grms. *Field Collection.*
- g. CARACALLA (213–217 A.D.). Rome.  $\mathcal{R}$ . Denarius. M.S. 302 C. 139.  
↖ 18 mm. 1.99 grms. *Petrie Collection. Purchase.*

ALINE ABACHERLI BOYCE

## THE WORMSER GIFT OF COINS OF EAST FRISIA

(SEE PLATES XII–XIII)

IN 1947 Mr. Charles M. Wormser gave the Museum a collection of about sixty coins of East Frisia, most of which are of smaller than taler size. To date there is in existence no complete catalogue of the coins of East Frisia. It has, therefore, been thought useful to publish a list of the coins given by Mr. Wormser as a small contribution toward the labor of the future scholar who will eventually produce a monograph of the coins and monetary history of East Frisia.

East Frisia, roughly speaking, is the territory in the extreme northwest of Germany, including the islands immediately to the north of the mainland. Unlike West Frisia, which became a part of the United Provinces (the Free Netherlands), East Frisia remained in the Holy Roman Empire until the dissolution of the latter.

Originally East Frisia consisted of a multitude of small independent tribal territories ruled by chieftains. It remained in that primitive state much longer than any other part of Germany. Eventually, as a result of intermarriage among the families of chieftains, inheritance, and force, a unified territory began to emerge, and in 1430, Edzard Cirksena became lord of all East Frisia. In 1454, his brother, Ulrich, assumed the title of Count. Thereafter the rule of the country remained in the House of Cirksena.

The country passed under Prussian rule in 1744, when, upon the death of Prince Karl Edzard, the House of Cirksena became extinct. It remained under Prussian rule until the Napoleonic period, when there was a brief interval of Dutch and French sovereignty. The Congress of Vienna assigned East Frisia to

the Kingdom of Hanover, and it subsequently suffered the fate of that kingdom. After the war of 1866 East Frisia was once more annexed to Prussia.

#### DESCRIPTIVE CATALOGUE

The coins described in this list are only those issued in the period from the unification of East Frisia until the extinction of the House of Cirksena. Therefore, five earlier and two later coins contained in Mr. Wormser's gift have been excluded. On the other hand, such coins of this period as are in the collection of The American Numismatic Society and are not duplicated by Mr. Wormser's gift are included for the sake of convenience and are marked by an asterisk. Coins listed either in Knyphausen<sup>1</sup> or in Saurma<sup>2</sup> are not described in detail, but are merely identified by their numbers in these catalogues, "K" denoting a Knyphausen and "S" a Saurma number. Coins, the type of which is listed in either of these catalogues, but which differ in inscription or interpunctuation from the coins actually in Knyphausen or Saurma, are identified by the number given in these catalogues for the general type, and the inscription is given in full. Knyphausen frequently lists several die varieties of one and the same coin without describing them. Since this makes it impossible to determine the exact Knyphausen number of the particular coin in the collection of the Museum, all the Knyphausen numbers appear in the quotation, and the number of die varieties possessed by the Museum is indicated.

Knyphausen and Saurma not infrequently disagree on the denomination of a given coin, but since the material is not available to engage in a history of the coinage of East Frisia, no at-

<sup>1</sup> *Münz- und Medaillen-Kabinet des Grafen Karl zu Inn- und Knyphausen* (Hanover, 1872).

<sup>2</sup> Saurma-Jeltsch, Hugo von, *Die Saurmasche Münzsammlung deutscher, schweizerischer und polnischer Gepräge von etwa dem Beginn der Groschenzeit bis zur Kipperperiode* (Berlin, 1892).



tempt is made to resolve these divergencies. In such cases the denomination used by Saurma is merely quoted in parentheses after that of Knyphausen. When only one denomination is shown, it is that used by either or both of the catalogues to which reference is made.

ENNO I (1466–1491)

1488 Gros Tournois (Stuiver) K 6335, S 3300.

EDZARD I (1491–1528)

N. D. Gold Florin K 6337/9, S 3302. One die in the Museum's collection.

N. D. Broad Groschen (2 Stuivers) type of K 6345, S 3303.

Inscription:

*Obv.* ♀ EDZARD • COME • – • PHRISIE ♀ ORIE ♀

*Rev.* ♥ SANTVS ♥ RA • – ROLVS ♥ MAG •

\*1504 Gros Tournois (Stuiver) type of K 6349, S 3305.

Inscription:

*Obv.* EDZARD—CO—°\*° FRIORIENTA • \*

*Rev.* (outer circle) DA • PAC—EM DNE—IN DIEB—VS  
NRIS

(inner circle) ANN • DOMI—M • CC—CCC4:

1504 Stuiver K —, S 3306.

ENNO II (1528–1540)

N. D. ¼ Taler K 6358.

PLATE XII, 1.

\*1529 Broad Groschen (Double Stuiver) K 6366/8, S 3308. One die in the Museum's collection.

PLATE XII, 2.

1529 Groschen (Stuiver) K 6395/6. One die in the Museum's collection.

EDZARD II, CHRISTOPH AND JOHANN (1540–1566)

\*1564 Taler type of K 6430.

Inscription:

*Obv.* \* MO \* EDZ \* CR \* IO \* C \* E \* D \* PH \* OR \*  
DA \* PA \* D \* I \* DI \* NO

*Rev.* ●● FERDI ● ROMA ● IMPERA ● SEM ● AV-  
GVSTV ✕

\*1564 Taler type of K 6430.

Inscription:

*Obv.* ‡ MO \* EDZ \* CR \* IO \* C \* E \* D \* PH ‡ O \*  
DA \* PA \* D \* I \* D \* NO

*Rev.* ✕ FERDI † ROMA † IMPER † SEM † AVGV  
TVS ††

\*1564 Taler type of K 6430.

Inscription:

*Obv.* ‡ MO † EDZ † CH † IO † C † E † D † PH † OR † DA †  
PA † D † I † D † NO

*Rev.* ✕ FERDI ● ROMA ● IMPERA ● SE ● AVGV  
TVS ● PLATE XII, 3.

1562 ¼ Taler type of K 6436.

Inscription:

*Obv.* EDZ † CHR † IOH † CO † ET DO † PHR † ORI

*Rev.* DA \* PACE \* DNE \* IN \* DIEBVS \* NOSTR \*

62 PLATE XII, 4.

N. D. ¼ Taler K 9705, S 3311.

N. D. 6 Stuivers (Flinder – 3 Stuivers) type of K 6437, S 3312.

Inscription:

*Obv.* MO \* EDZ – CHR \* IOH – CO \* E \* DO – PHR \*  
OR \*

*Rev.* DA \* PACEM \* DNE \* IN \* DIEB \* NOS-  
TRIS ✕

1564 2 Stuivers K –, S 3313.

EDZARD II AND JOHANN (1566–1591)

1589 ½ Taler type of K 9715/6, but different date and inscription.

Inscription:

*Obv.* EDZ : E : IOH : CO – E : DO : PHR : O ✕

*Rev.* DA : PACE : DOMINE : IN : DIEBVS : NOST

1579 ¼ Taler (4 Stuivers) K 6449, S 3317 (two specimens).

1584 6 Stuivers (3 Stuivers) type of K 6451, S 3319, but inscription on  
rev. ends: AVGV.

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1585 6 Stuivers (3 Stuivers) K 6453/8. One die in the Museum's collection.

1568 Stuiver (Syfert – ½ Stuiver) K 6461, S 3320.

1582 Stuiver (Syfert – ½ Stuiver) K 6467, S –.

ENNO III (1599–1625)

1614 Taler K 9726 (6479<sup>1</sup>). PLATE XII, 5.

N. D. ¼ Taler K 6488, S 3328.

N. D. ¼ Taler type of K 6488, but inscription on reverse ends: NOST instead of: NOS.

N. D. 6 Stuivers K 6487, S 3327.

N. D. 2 Stuivers K 9730 (6488<sup>2</sup>). Two dies in the Museum's collection.

N. D. 2 Stuivers K 9732 (6488<sup>5</sup>).

N. D. ½ Stuiver K 6495.

N. D. ⅓ Stuiver K 6499.

ULRICH II (1628–1648)

1633 6 Stuivers K –.

*Obv.* Crowned Arms with six quarterings, around: MO – NO · UDA – LR:C: E: D – FRI : ORI · – 1633

*Rev.* Crowned double eagle, around: · FERDINANDUS II · D : G : EL : RO : IM : S · A · PLATE XIII, 6.

N. D. 6 Stuivers K –.

*Obv.* Crowned Arms with six quarterings, around: MONVDA – LRIC – ED FR · OR

*Rev.* Crowned double eagle, around: FERDINAN · II · DG · EL · ROM · IM · SEM · AV PLATE XIII, 7.

ENNO IV LUDWIG (1648–1660)

1652 Groschen commemorating the death of his mother Juliane of Hessen—Darmstadt K 6505.

N. D. 6 Stuivers K –.

*Obv.* Crowned Harpy with four stars, around: MO · NO · ENN. LVD. D.G. PRINC. FRIS. OR.

*Rev.* Crowned arms with four quarterings, around: DOM.  
ESE – NSSIED – ET WITM PLATE XIII, 8.

GEORG CHRISTIAN (1660–1665)

\*N. D.  $\frac{1}{8}$  Taler K 6506.

N. D.  $\frac{1}{8}$  Taler K 6516.

N. D.  $\frac{1}{8}$  Taler K 6517.

PLATE XIII, 9.

N. D. Stuiver type of K 6523.

Inscription:

*Obv.* MON · GEOR · CHRIS · D · F · O · D ·

*Rev.* DA · P · – DOM · – IND · – NOS

CHRISTIAN EBERHARD (1665–1708)

N. D.  $\frac{1}{8}$  Taler K 6541.

1694 6 Stuivers K 6545/7. Two dies in the Museum's collection.

1694 6 Stuivers same type, but arms between F – BP and inscription on  
obv.: CHRISTIAN · EBER · P & D · FO · D · E · S & W; on  
rev.: LEOPOLD : D : G : ROM : IMP : SEM : AV · 1694

1696 6 Stuivers K 6549/50. One die in the Museum's collection.

N. D. 6 Stuivers type of K 6558, but inscription on rev.: LEOPOL :  
D : G : ROM : IMP : SEMP : AV

1697 3 Stuivers K 6561.

N. D. 2 Stuivers type of K 6566a.

Inscription:

*Obv.* CHR · EBERH : P : FRIS OR : ✕

*Rev.* ✕ FVRSTL · OSTFR : LAND : MVNTZ

N. D. Stuiver type of K 6570.

Inscription:

*Obv.* MO : NO : CHR : EB : P · F · O

*Rev.* DA · – PAC · – DN · – IN · DI · – N ·

1706  $\frac{1}{2}$  Stuiver K 6572.

1706  $\frac{1}{2}$  Stuiver K 6573.

N. D.  $\frac{1}{2}$  Stuiver K 6576/7. Two dies in the Museum's collection.

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N. D.  $\frac{1}{4}$  Stuiver K 6579.

N. D.  $\frac{1}{4}$  Stuiver K 6580/3. Three dies in the Museum's collection.

GEORG ALBRECHT (1708–1734)

1730  $\frac{1}{8}$  Taler K 6597.

PLATE XIII, 10.

1730 2 Mariengroschen K 9740 (6599<sup>1</sup>).

1733 Mariengroschen K 9741 (6604<sup>1</sup>).

1713  $\frac{1}{2}$  Stuiver K 6608.

1715  $\frac{1}{2}$  Stuiver K 6609.

1716  $\frac{1}{2}$  Stuiver K 6611.

1717  $\frac{1}{2}$  Stuiver type of K 6615, but inscription on obv.: MO IO  
GEO · AL · P : F : O · D 17–17 :

1717  $\frac{1}{4}$  Stuiver type of K 6615, but inscription on obv.: MO IO.  
GEO : ALB : P · 17–17

N. D.  $\frac{1}{4}$  Stuiver K 6618/9. One die in the Museum's collection.

N. D.  $\frac{1}{4}$  Stuiver K 6620/1. Four dies in the Museum's collection.

N. D.  $\frac{1}{4}$  Stuiver K 6622/3. One die in the Museum's collection.

KARL EDZARD (1734–1744)

1741  $\frac{1}{2}$  Taler K 6635.

1742  $\frac{1}{2}$  Taler K 6637.

1735 Mariengroschen K 6647.

1736 Mariengroschen K –.

*Obv.* Crowned monogram CE, below: I, C, G.

*Rev.* In four lines: \* I \* / MARIEN / GROS : / N.L.F.,  
around: D · G · PR · FR · OR · D · G · ES · ST · & WM · 1736 \*

PLATE XIII, 11.

N. D.  $\frac{1}{4}$  Stuiver K 6649/52. One die in the Museum's collection.

HERBERT J. ERLANGER



## AN UNPUBLISHED PALLAS THREE DUCAT PIECE OF WEIMAR

(SEE PLATE XIII, 12)

**W**ITH the purchase of some Saxonian coins The American Numismatic Society has acquired an unpublished three ducat piece which can be described as follows:

SAXONY-MIDDLE-HOUSE-OF-WEIMAR

JOHANN ERNST WITH HIS FIVE BROTHERS 1622-1626

Three Ducats 1622

*Obv.* Complete Saxonian shield. MONETA·NOVA·AVREA·1622\*

*Rev.* Pallas standing left DVCVMS·AXON (iae): VIN (ariensis):

This is the first large size gold coin struck by the Weimar princes after the time of the Kipper and Wipper, when large quantities of debased small silver coins were issued. The coin must have been struck after August 11, 1622, the date on which Duke Albrecht issued a mint edict condemning most of the coins struck between 1618 and 1622. While the earlier gold florins of these princes showed their portraits, this one has Minerva in full figure and a bunch of arrows in the left field. This is probably an allusion to the warrior-like spirit of the princes, who took an active part in the Thirty Years' War. The piece shows no initials, but the extremely fine die work seems to indicate that the engraver was Gabriel Andreae, who cut the dies for the Pallas Taler of the same period.

HENRY GRUNTHAL





## THE COUNTERSTAMP OF THE FRANCONIAN CIRCLE OF 1693

(SEE PLATES XIV–XV)

**A**FTER the monetary crisis of 1621–23, the three South German Circles, the Franconian, Bavarian, and Swabian, held a meeting at Augsburg on May 15, 1624. At this meeting the three Corresponding Circles, as they were also known, reestablished as the unit of silver coinage the Reichstaler as fixed by the law of 1566. This coin weighed one-eighth of a mark silver (29.207 g.) and contained one-ninth of a mark fine silver (25.984). It was thenceforth to be divided into ninety kreuzers (kr.). They also continued to permit the old Gulden-taler or Guldengroschen as established by the law of 1559. Since the silver content of this coin was too high for its face value of sixty kr., it was already obsolescent, and the few estates, such as Nuremberg and Regensburg, that continued to coin the Guldentaler did not coin it for circulation as a sixty-kreuzer piece. It finally passed out of existence in 1660, when the city of Nuremberg coined it for the last time. The many gulden or two-thirds taler pieces that were coined thereafter were on an entirely different standard, even though they carry the figure 60.

The system established in 1624 and controlled by periodic assay meetings at Augsburg, Nuremberg, and Regensburg remained in operation without serious disturbance for about fifty years until a new wave of monetary debasement set in. The cause of this was the endless wars brought upon Europe by the territorial ambitions and aggressive policy of Louis XIV of France. Since a system of fiduciary currency had not yet been developed, wartime demands for an increased circulating medium could be met in this period by no other means than that

of putting less precious metal into coins than their face value would indicate.

The unfortunate fact that the debasement was due to inescapable economic pressure caused it to spread widely and rapidly, particularly in North and Central Germany. Very soon, instead of being an unregulated and surreptitious practice by a few irresponsible minor princes, it was openly done by some of the foremost powers of the Empire. On August 24, 1667, the Electors of Brandenburg and Saxony met at Zinna, a former monastery in the Brandenburg territory, and agreed on an interim basis to a new standard of coinage. The unit was a "taler," of which there were to be ten and one-half to the fine mark of silver, and which consequently would contain 22.272 g. thereof.

It quickly became apparent that the Zinna standard was not sufficiently low to be practicable. Again a debasement became necessary, and in 1690 the Elector of Saxony and the Dukes of Brunswick followed the Elector of Brandenburg in the establishment of a "taler" that contained only one-twelfth of a mark of fine silver or 19.488 g. This standard was imitated by many estates all over the Empire and became known as the "Leipzig" standard.

The Emperor had accepted neither the Zinna nor the Leipzig standard, although he did permit debased 15-kr. pieces to be struck in his own mints, and there was still enough respect for the old laws left in the empire to cause the partners to these conventions to refrain from the coinage of actual Zinna or Leipzig "talers." Instead, it became the practice to issue two-thirds talers, or, as they were called in the Franconian Circle, "Guldiner." Frequently they carry the inscription "60 kr.," but they were not really worth sixty kreuzers in terms of the old Reichstaler of ninety kreuzers. Actually the Zinna guldiner was worth only fifty-one and three-sevenths kr., and the Leipzig guldiner was worth forty-five kr.

The laws of 1559 and 1566, however, had not established any weight or fineness for the kreuzer, and it was thus legally possible to talk in terms of a debased "kreuzer." There were sixty of these to the Zinna gulden and ninety to the Zinna taler. Later the same relation held true for the Leipzig gulden and taler. Conversely, this gives the old Reichstaler a value of first one hundred and five and later one hundred and twenty kr., and it is in this form that the devaluation appears in the contemporary records. The gulden thus became a mere unit of accounting (*Rechnungsmünze*), and merely signifies the sum of sixty kr. We find, for instance, in a letter of the City of Augsburg to the Bishop of Bamberg<sup>1</sup> the suggestion that the Reichstaler be raised from  $7/4$  to  $8/4$  gulden, which simply means that the Leipzig standard should be adopted instead of that of Zinna.

The three Corresponding Circles at first refused to have anything to do with this debasement, although some of their members, such as Montfort and Oettingen in the Swabian Circle and Brandenburg-Ansbach in the Franconian Circle, were by no means innocent of such practices.

Not unnaturally, considering the general economic conditions, the frequently repeated edicts and mandates of the Franconian Circle and the City of Nuremberg remained without effect. This was true because of the ever increasing lack of lawful coinage, which continued to disappear into the crucible while practically no new money on the proper standard was being issued. The City of Nuremberg, for example, long the principal source of circulating medium in the Franconian Circle, while refraining from issuing debased currency, coined talers only in one year, 1680, during the entire period from 1667 to 1693. Conditions in the other principal estates of the Circle were similar.

<sup>1</sup> Hirsch, J. Chr., *Des Teutschen Reiches Münzarchiv* (1759), Vol. V, 357. Hereafter cited as Hirsch.

Despite all official prohibitions, the inhabitants of the various Estates of the Circle found themselves compelled to use the debased foreign coin for trade and commerce, but soon discovered that they were entirely unable to judge its real value and consequently suffered continuous losses. The three Circles jointly, each one of them separately, and even many of the Estates themselves issued lists and tariffs, but that was at best a haphazard method and rather unsatisfactory. Various methods of counterstamping these guldiner had been attempted in various other parts of the Empire with but indifferent success.<sup>2</sup> At a meeting of the Franconian Diet on July 12, 1691, a proposal was made to adopt the practice. The matter came to nothing,<sup>3</sup> possibly because of practical difficulties and possibly because the propositions made to the Diet were to counterstamp only guldiner that were worth fifty kr. and ban all others. This was proposed despite the fact that most of the guldiner circulating in 1691 must have been on the Leipzig standard, and thus worth only forty-five kr. Yet there must have been many, particularly in the cities like Augsburg and Nuremberg, who realized that the Leipzig standard, technically illegal as it was, could not indefinitely remain ignored by the three Circles without dire consequences to their trade and industry. The above mentioned letter of the City of Augsburg, the leading financial Estate of the Swabian Circle, to the Bishop of Bamberg, the Director of the Franconian Circle and of all three Circles in monetary matters, shows this attitude very clearly. It dates from February 12, 1693, and on March 30/April 9, 1693,<sup>4</sup> the Franconian Circle made the first step towards regularizing the monetary situation by authorizing the

<sup>2</sup> For example, at Salzburg in 1681, in the Westphalian Circle in 1688, and in the City of Cologne in March, 1693; as well as at Hanau, Lippe, and Strassburg.

<sup>3</sup> Gebert, C. F., "Die Kontermarkierung der Gulden seitens des fränkischen Kreises," in *Mitteilungen der Bayerischen Numismatischen Gesellschaft*, Vol. XXV (1906), p. 19. Hereafter cited as Gebert.

<sup>4</sup> Hirsch, Vol. V, p. 357; Gebert, *op. cit.*, erroneously reports the latter date as May 9.

issue of a "Kreiskgulddiner" with an intrinsic value of forty undebased kreuzer, or four-ninths of a Reichstaler, *i.e.*, 11.548 g. fine silver (PLATE XV, 4). In fact, it was worth even less than the gulddiner according to the Leipzig standard which held 12.992 g. fine silver (45 kr.). This discrepancy was unquestionably due to the further debasement that the Leipzig standard had suffered at the hands of many of the smaller Estates of the Empire since its inception in 1690,<sup>5</sup> and to the determination of the Franconian Circle that these coins were to remain in circulation and were not to disappear again as raw material for foreign mints.

These Kreiskgulddiner were coined in great numbers, while the one-half gulddiner which had been authorized simultaneously are much scarcer. The coinage was executed in Nuremberg, and the coins bear the initials of G. F. Nürnberger, the warden of the city. Im Hof lists three dies of the gulddiner, and its continued coinage is attested by the Resolution of the Diet of the Circle dated April 29/May 9, 1693,<sup>6</sup> and a Rescript of the Bishop of Bamberg of June 15/25, 1693,<sup>7</sup> which raised the question whether or not the intrinsic value of the coins should be raised to 45 kr. in order to make them conform to those of the Lower Saxon Circle and incidentally to the Leipzig standard. An assay meeting of the Circle which had been called to assemble at Nuremberg on June 8/18 was to decide this question, but since neither Hirsch nor Gebert gives any report of this meeting we do not know whether the silver content of these gulddiner was actually increased or not.

In any event, the final step of accepting the Leipzig standard was made shortly thereafter at an assay meeting of the three

<sup>5</sup> This is shown by the assay report of the Franconian Warden Metzger reprinted in Schrötter, Friedrich Freiherr v., "Das deutsche Heckenmünzenwesen im letzten Viertel des 17. Jahrhunderts," in *Deutsches Jahrbuch für Numismatik*, Vol. I (1938), p. 102. Hereafter cited as Schrötter.

<sup>6</sup> Hirsch, Vol. V, p. 364.

<sup>7</sup> *Ibid.*, p. 365.

Circles, which assembled also at Nuremberg on July 24/August 3, 1693,<sup>8</sup> shortly after the Bishop of Würzburg had admitted the Leipzig guldiners into his own territory by an edict of July 16.<sup>9</sup>

Naturally the Circles also revalued the Reichstaler at 120 kr. and at the same time exhorted the Estates to coin talers as well as halves, quarters, and eighths thereof. This was immediately carried out by the City of Nuremberg, which never issued the despised guldiner, but produced in 1693 and 1694 considerable numbers of coins on the old standard which are beautifully executed and which form a striking contrast to the rather slovenly Kreis-guldiner, although they bear the initials of the same mint-master.

The three Circles also ordered a list or tariff to be published which would show those guldiner that had the full value of sixty devaluated Leipzig kreuzer and those that were worth only fifty of these kreuzer. Actually, however, the list published by authority of the final resolution (Rezess) of the meeting, dated October 9/19, 1693, contains four classes of guldiner, namely, those of the full value of forty-five old, or sixty new, kreuzer; those having an intrinsic value of thirty-six to forty-four old kreuzer which could pass at fifty new kreuzer; those that could pass at forty-five new kreuzer, which class is not mentioned in the resolution itself; and finally those that were prohibited altogether. By special provision of the resolution, the guldiner which were prohibited included not only those shown in the fourth section of the list, but also all guldiner of Anhalt and Sayn as well as "some" of Schwarzburg. "Anhalt" here apparently meant Anhalt-Zerbst only, because other Anhalt guldiner appear among those of full value, and Sayn includes Wittgenstein as well as Berleburg.

The Nuremberg representative at the meeting, Johann Paul

<sup>8</sup> *Ibid.*, p. 373.    <sup>9</sup> *Ibid.*, p. 366.

Paumgartner, protested against the resolution. The reasons for his protest are shown in a memorandum dated December 19, 1693.<sup>10</sup> Presumably it was sent to the Bishop of Bamberg.

In the meantime, with the official acceptance of the Leipzig standard by the Circle, a sufficient amount of Kreisguldiner in circulation, and the gradual success of the Emperor and the larger princes in suppressing the illegal mints manufacturing guldiner of less than Leipzig standard, the campaign of the Circle to eliminate the "bad" foreign money reached the point where it could finally be accomplished. A convenient way to do this was to counterstamp all good guldiner and prohibit the rest. A counterstamp was thus proposed to the Estates of the Circle, and after some arguing<sup>11</sup> it was accepted, although it had previously been rejected by the meeting of the three Circles during the summer.<sup>12</sup>

The stamp as finally adopted at a meeting of December 12/22, 1693, shows the letters F and C in a monogram, meaning Fränkischer Creis or Circulus Franconicus; the figure 60 indicating the value of sixty new kreuzer; and a letter indicating one of those official mints of the Circle in operation at the time, namely N for Nuremberg, S for Schwabach, and W for Würzburg, although the oath that had to be sworn by the persons doing the stamping obliged them to stamp only such coins as were worth forty-five kreuzer.<sup>13</sup> The oath that had to be sworn by persons doing the stamping obliged them to stamp only such coins as were worth forty-five old kreuzer, which were equal in value to sixty new kreuzer. The decision that the stamping was to be done at all three mints represented a victory of the Brandenburg-Ansbach government, in whose territory Schwabach lies, gained with

<sup>10</sup> *Ibid.*, p. 389.    <sup>11</sup> Gebert, p. 20.

<sup>12</sup> See a letter from the Bishop of Bamberg to the Ansbach government, dated December 26, 1693, in Hirsch, Vol. VIII, p. 61.

<sup>13</sup> Gebert, p. 22.

the help of Bamberg over the majority of the Estates, which originally had decided to have all the stamping done at Nuremberg.

Questions now arise as to when and where the counterstamping was actually done and which coins were made subject to it, or by which line of reasoning these coins were selected.

It is possible that the counterstamping started during the last days of the year 1693, but it is certain that it continued through 1694 and into 1695, because the stamp is found on a guldiner of Swedish Pomerania of that year.<sup>14</sup> In fact, it is not impossible that it lasted as long as 1696, because an edict of the Nuremberg Senate dated December 7, 1695, is known<sup>15</sup> which prohibits the accepting or passing of gulden "that are not acceptable at the Schau-Amt [the office of the Mint Warden] or that the competent authorities should refuse to counterstamp," which edict would imply that the stamping still went on at the time when it was issued.

There can be no doubt that the overwhelming majority of the coins were counterstamped at Nuremberg. The Ansbach government seems to have insisted on the right to do it at Schwabach merely as a matter of principle.<sup>16</sup> Gebert in thirty-five years of numismatic activity has seen only one specimen with the Schwabach counterstamp. He describes it as a guldiner of Saxony-Lauenburg<sup>17</sup> that came from a Frankfurt auction "a few years back." A similar piece from the writer's collection is illustrated (PLATE XIV, 4), but no evidence can be established that it is identical with the piece mentioned by Gebert. Gebert also says that the Bishop of Würzburg never even picked up the stamp that had been made for his mint, and certainly no specimen with the Würzburg stamp has ever been found.

A list is added as Appendix A, which shows all coins which

<sup>14</sup> Coll. Bratring, Hess Sale, Nov. 25, 1912, No. 582.

<sup>15</sup> In the writer's collection.    <sup>16</sup> Gebert, p. 22.

<sup>17</sup> These guldiner of Julius Franz of Lauenburg exist only with the one date of 1678.



the writer knows to exist with the counterstamp of the Franconian Circle. This list immediately raises the question of why these particular coins were chosen.

Considering that the above oath states that the coins to be counterstamped must be worth at least forty-five old kreuzer and that these are precisely the ones listed in the first class of the great tariff of October 9/19, one would be inclined to assume that most of the guldiner that appear on this list, which is added as Appendix B, should be known with the counterstamp. At least none should be so known which are not on the list. Yet even the most casual comparison between Appendices A and B will show that this is decidedly not the case. Furthermore, even disregarding the tariff, it is striking that of the most numerous series of good guldiner, those of Electoral Brandenburg, Electoral Saxony, and the various Brunswick dukes there is not a single specimen known with the counterstamp. If, therefore, the intention should ever have been to counterstamp all the good guldiner, this was most certainly not done.

The absence of these three categories can probably be explained by the theory that these guldiner were so generally known to be of full value that it was not necessary to stamp them at all. For the other divergencies between Appendices A and B it is necessary to refer to the memorandum of the City of Nuremberg issued on December 19, 1693, and to remember that virtually all of the stamping was done there.

This memorandum complained that the first part of the list, which enumerates the one hundred and fifty-two types of guldiner of full value "looks impressive indeed, but there are not enough of these guldiner in the entire Circle to pay the salary of a single colonel." The Circle at that time was full of foreign troops, which were the main reason for the flood of bad money. The memorandum goes on to point out that the three Circles had been too rash in condemning certain species of guldiner,

and that there were "Werke"<sup>18</sup> of good ones even among those of Anhalt and Sayn. They were listed and illustrated in a supplementary schedule, added as Appendix C, and it was urged that these guldiner be accepted for circulation and be counterstamped. In fact, the City threatened bluntly that if the Circle should not agree to the counterstamping of these guldiner, it would counterstamp them anyway in order to protect its citizens from unnecessary losses.

It was not said whether this was to be done with the stamp of the Circle or with a special City stamp, nor do we know what the Bishop of Bamberg replied to the memorandum of the City, but we do know that many of the guldiner mentioned in the memorandum actually exist with the counterstamp of the Circle. Of the forty guldiner so mentioned, eighteen are known with the counterstamp. On the other hand, of the one hundred and fifty-two in part one of the schedule issued by the three Circles, only twenty-one are known with the exact date listed there. In addition there were twenty-one of the design shown but of different date. This does not include those other dates which are listed in Appendix C and which had been excluded in the original schedule. The Nuremberg list is more detailed and gives more varieties of guldiner of the same design than the list of the three Circles, which occasionally shows more than one date of the same design, but which apparently had no intention of being technical on that point. Yet the fact that 45% of the former are known to have been counterstamped, and at the most only 27.6% of the latter, shows that whether approved by the Circle or not, the City carried out its plan as outlined in the memorandum, and also that its observations on the availability of guldiner in the territory of the Circle were well founded in fact. Those unknown with the counterstamp are mostly those of remote or small Es-

<sup>18</sup> Schrötter, *Handwörterbuch der Münzkunde*, p. 739, defines a "Werk" as "the totality of all coins manufactured out of the metal alloy prepared in one crucible at one time."

tates, those of early dates and hence high silver content, and finally those of Electoral Saxony, Electoral Brandenburg, and the Dukes of Brunswick, as well as the numerous issues of the Archbishopric of Magdeburg, called Saxony-Halle in the schedules, the administrator of which, Prince Augustus of Saxony, was a brother of the Elector. This apparently caused his coins to be regarded with the same kind of assurance of full value as those of Elector John George II.<sup>19</sup>

The fact that not all guldiner of full value had been counterstamped even as late as April, 1695, is confirmed by a decision (Münzprobationsschluss) of an Assay Meeting held by the three Circles at Nuremberg from March 28 to April 7, 1695.<sup>20</sup> This decision expressly permits the continued circulation of "the guldiner of the first class as well as the counterstamped ones and those that are found to be of the same intrinsic value." It is clear that only those guldiner were counterstamped about which there was actually a doubt as to intrinsic value. In this connection it is also of interest that the Wassersleben Sale mentions a counterfeit piece of Brandenburg-Ansbach with the counterstamp, while no such genuine guldiner are known.

Conversely, the decision of 1695 also provides for the counterstamping of newly discovered guldiner of full value, and several counterstamped pieces are known which are not listed in either schedule B or schedule C. These include guldiner of Philipp Reinhard of Hanau, of Simon Heinrich of Lippe-Detmold, and of Friedrich II and Johann Wilhelm of Saxony-Gotha.

In connection with the question of which guldiner were stamped and why, it must be remembered that undoubtedly there were many counterstamped pieces which have not survived the centuries.

This brings us to the final question of how the wardens could

<sup>19</sup> This is entirely unfounded according to Schrötter, p. 52.

<sup>20</sup> In the writer's collection.

determine which actual and individual pieces really had the intrinsic value of forty-five undebased kreuzer. Weighing each piece would obviously not be enough since it was usually the alloy that was debased and not the weight. Assaying each separate piece, on the other hand, would have been a Herculean task, nor do the surviving counterstamped pieces show any traces of having been individually assayed. Apparently the warden was satisfied to assay a few pieces or perhaps only one piece out of each "Werk," and to assume that all other pieces of the same "Werk" were of the same quality. This system was accurate enough as long as it was a question of coins of the Estates of the three Circles, which had to give representative pieces of each "Werk" for the pyx kept in turn by the wardens of each of the Circles. But, in the case of coins from the Estates of other Circles, it was difficult to say out of how many different "Werke" they came. It seems that in these cases it was simply assumed that all coins of a particular die or even of a particular design and date were from one and the same "Werk." This method was poor, but many of the assay reports and decrees of the Nuremberg Senate show that it was the one followed. Under the confused and insecure conditions of the time this was no doubt a satisfactory expedient, or, at any rate, the best that could be devised.

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SCHRÖTTER, FRIEDRICH FREIHERR V., "Das deutsche Heckenmünzenwesen in letzten Viertel des 17. Jahrhunderts," in *Deutsches Jahrbuch für Numismatik*, Vol. I (1938), p. 39 ff.

APPENDIX A

COINS known to exist with the counterstamp of the Franconian Circle.

Where no other description is given the coin shows the bust of the prince on the obverse and the crowned arms on the reverse. Cypher means a large monogram; value, a large 2/3; inscription, several lines of lettering which may or may not contain an indication of the face value.

Die varieties including differences in abbreviations and the like are not specially described. Where, however, the monograph quoted contains more than one such variety, the numbers are quoted, and where it is otherwise known certainly that more than one such variety exists, the number existing is indicated.

Anhalt (joint issue): 1670 Arms / Bear, Weise 959.3.

1689 Arms / Inscription, Mann 212a.

Anhalt-Dessau: *Johann Georg II* 1675, Weise 943.

1692, Mann 885a.

1693, Weise 947, Mann 886a, d, g, h.

Anhalt-Harzgerode: *Wilhelm* 1675, Helbing Sale, March 23, 1942, No. 2179.

1677, Mann 837c.

1679, Mann 838h, i, k.

without date, Weise 950.7, Mann 834c.

Anhalt-Zerbst: *Carl Wilhelm* 1675, Mann 249w.

1676, Mann 250e, f, n, w, z, bb, ff.

1677, Mann 251a, m, Weise 962.

The coins of Anhalt have the counterstamp on some varieties shown without it by Mann.

Emden: 1688 Double Eagle / City Arms, Helbing Sale, Sept. 15, 1925 No. 1256.

PLATE XV, 1.

1691 Double Eagle / City Arms, Weise 2244.6.

Frankfurt: 1691 Eagle / Cross, Joseph & Fellner III p. 729 No. 574.

1693 Eagle / Cross, Joseph & Fellner III p. 729 No. 575a, 2166a.

Hanau: *Philipp Reinhard* 1693, Suchier 674.

Henneberg: 1691 Hen / Saxonian Arms, Weise 1508.1.

1692 Hen / Saxonian Arms, Weise 1508.4, 5, 6.

1693 Hen / Saxonian Arms, Weise 1508.7.

PLATE XIV, 3.

There are at least eight varieties of 1692 and two of 1693.

Hildesheim (Bishopric): *Jodocus Edmund* 1693 Arms / Inscription, Weise 807.1, 2, Cappe 273.

Hildesheim (City): 1690 Arms / Inscription, Buck & Bahrfeldt 313.  
1693 Arms / Inscription, Buck & Bahrfeldt 325.

Lauenburg: *Julius Franz* 1678, Weise 1267.1, 2, Schmidt 180 ff.

PLATE XIV, 4.

It cannot be clearly determined from Schmidt how many varieties were known to him, but the author has seen seven and there are certainly more.

Leiningen-Westerburg: *Georg Wilhelm* 1678, Joseph 8a, c, e.

Lippe-Detmold: *Simon Heinrich* 1683 Arms / Inscription, Coll. Arens, Rosenberg Sale Feb. 20, 1911, No. 524.

Lübeck (Bishopric): *August Friedrich of Holstein* 1678, Weise 813.2 (two dies), Lange 505d.

There are at least three varieties, some on dies shown by Lange without the counterstamp.

Mecklenburg-Schwerin: *Christian Ludwig I* 1676, Evers II p. 135.

The counterstamp is very badly described by Evers, but seems to be the one of the Franconian Circle.

Montfort: *Johann* 1675, Binder-Ebner 100.

1679, Binder-Ebner 115, 116, 117, Weise 1700.

*Anton* (Administrator) 1690, Binder-Ebner 126, 127, 128, 129, Weise 1701.1.

Binder-Ebner 114 is also known with the counterstamp, although not so listed by him. The type is the same as that of 115 and the others of 1679.

Münster (Bishopric): *Friedrich Christian* 169—. Arms / Inscription (date under value). PLATE XIV, 1.

The last figure of the date is obliterated by the counterstamp; it is 1692 or 1693.

1693, Arms / Inscription (date at end of legend around)  
(on Weise 822.2). PLATE XIV, 2.

Oettingen-Oettingen: *Albrecht Ernst I* 1675, Loeffelholz 326, 327, 330.

1676, Loeffelholz 344a, 345, 347, 350, 352.

1677, Loeffelholz 368, Weise 1591, 5.

Palatinate (Jülich): *Johann Wilhelm* 1690, Noss (Jülich) 780, 782a.

1691, Noss (Jülich) 794a, 795a.

Reuss (Younger Line): *Heinrich I* 1678 Inscription / Crowned Heart, Schmidt & Knab 495.

1678, Schmidt & Knab 498, 499.

1679, Hess Price list 239, No. 1512 (on Schmidt & Knab 507).

1679, Helbing Sale Feb. 17, 1925, No. 891 (this gul-diner has the inscription in regular type and not in

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italics, as all the guldiner shown in Schmidt & Knab  
for this year have; it also has the Z inverted).

PLATE XV, 2.

Saxony-Eisenach: *Johann Georg II* 1693 Bust / Four crowned cyphers and arms,  
Coll. Joseph Hamburger Sale Oct. 28, 1912, No. 7152.

Saxony-Gotha Altenburg: *Friedrich I* 1690, Coll. Heilbrunn, Ball Sale Oct. 5,  
1931, No. 1038.

1691, Coll. Heilbrunn, No. 1039.

*Friedrich II and Johann Wilhelm* 1692, Coll. Merse-  
burger No. 3115.

1693, Coll. Merseburger No. 3129.

Saxony-Jena: *Bernhard* 1674, Frede 6b.

Saxony-Weimar: *Johann Ernst II* without date, Rosenberg Fixed Price list 1908,  
No. 2354.

1674, Coll. Heilbrunn No. 915.

1675, Coll. Heilbrunn No. 916.

1676, Weise 1421.5.

1677, Weise 1422.1, Coll. Merseburger No. 3919.

1678, Weise 1422.6, Coll. Vogel, Helbing Sale Oct. 8, 1928,  
No. 6297.

1679, Coll. Vogel No. 6299.

*Wilhelm Ernst & Johann Ernst the Younger* 1690 Arms / In-  
scription, Weise 1426.

Sayn-Wittgenstein: *Gustav* 1676, Coll. Joseph 5301, 5305, 5339.

1677, Coll. Joseph 5369, Weise 1772.

1691, Coll. Joseph 5400.

Sayn-Wittgenstein-Berleburg: *Georg Wilhelm* 1675 Arms / Cypher, Weise 1745.

1676 Rosenberg Sale Nov. 25, 1929, No. 2504.

Schwarzburg-Sondershausen: *Christian Wilhelm I* 1676, Fischer 322b, Rein 809.

*Anton Günther II* 1675, Fischer 350.

Solms-Hohensolms: *Ludwig* without date, Joseph 290, 291, 292, Weise 1831,  
1832.2.

1676, Joseph 267d, Weise 1836.2.

1677, Joseph 282.

Solms-Rüdelheim: *Johann August* 1676, Rosenberg Sale Nov. 25, 1929, No.  
2274 (on Joseph 440).

Sulz: *Johann Ludwig* 1675, Binder-Ebner 67.

PLATE XV, 3.

Swedish Pomerania: *Charles XI* 1690, Bonnier, 1176, 1179, Oldenbourg 1934,  
Bruun 1562.

1695 Coll. Bratring, Hess Sale Nov. 25, 1912, No. 582.

Trier: *Johann Hugo* 1693, Schrötter 647.

## APPENDIX B

LIST of those guldiner which had the full value of 45 (undebased) kreuzer according to the schedule attached to the recess of the assay meeting of the three circles, dated October 9/19, 1693.

It must be remembered that the illustrations in the schedule are rather crude and that there are usually many minor die varieties of each of the coins illustrated, some of which may not be of full value.

Anhalt (joint issues): 1670 Arms / Bear.

1681 Arms / Inscription.

Anhalt-Dessau: *Johann Georg* 1675, 1677, 1691.

Anhalt-Harzgerode: *Wilhelm* 1676, 1679.

Arenberg: *Karl Eugen*: 1672 Arms / Eagle, 1676.

Bentheim-Tecklenburg: *Moritz* 1673 Helmet / Arms.

*Adolph* 1676 Helmet / Inscription.

Brandenburg-Prussia: *Friedrich Wilhelm* without date, 1674.

*Friedrich III* 1691.

Brandenburg-Ansbach: *Johann Friedrich* 1676, 1679 Bust / Allegory (two types), 1679 Bust / Allegory, 1682.

Brunswick (joint issues): 1677 Value / Inscription.

Brunswick-Lueneburg: *Johann Friedrich* without date Horse / Value (two varieties), 1673 Bust / Palmtree, 1674 Bust / Inscription, 1674 Horse / Inscription (three varieties), 1675 Bust / Palmtree, 1675 Bust / Value, 1675 St. Andrew's Cross / Inscription, 1676 Bust / Palmtree (two varieties), 1679 Bust / Palmtree (two varieties).

*Ernst August* (Bishop of Osnabrück) without date Horse / Arms (two varieties), 1675 Helmet and Mitre / Inscription, 1680 Horse / Arms, 1691 Wildman / Arms.

Brunswick-Lueneburg-Celle: *Georg Wilhelm* 1675 Horse / Inscription, 1690 Horse / Value.

Brunswick-Wolfenbuettel: *Rudolf August* 1675 (two varieties), 1675 Bust / Arms of the City of Brunswick (three varieties), 1679 Wildman / Inscription, 1682 Wildman / Inscription.

*Rudolf August* & *Anton Ulrich* 1691 Horse / Inscription.

Bremen (City): 1666 Double Eagle / City Arms.

Bremen and Verden: *Charles XI of Sweden* 1675.



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- Bronckhorst-Gronsveldt: *Johann Franz* 1688 Arms / Value.
- Colmar: without date Double Eagle / City Arms.
- Denmark: *Christian V* 1672 Cypher / Arms.
- Dortmund: 1681 Emperor Leopold / City Arms.
- Einbeck: 1675 Crowned E / Inscription.
- Emden: without date Double Eagle / City Arms.
- Erbach: *Georg Albrecht* 1676.
- Frankfurt: 1672 Floriated Cross / City Arms.
- Friedberg: 1674 Double Eagle / St. George.
- Fugger: *Sigmund Joseph* 1684 Bust / Value.
- Goslar: 1675 City Arms / Inscription.
- Groningen: 1674 Citizen with Sword / City Arms.
- Hagenau: without date Double Eagle / City Arms.
- Hamburg: without date Double Eagle / City Arms.
- Hameln: 1672 City Arms / Inscription.
- Hanau: *Friedrich Casimir* 1675.
- Hanover (City): 1672 City Arms / Inscription.
- Henneberg-Ilmenau: 1692 Hen / Saxonian Arms.
- Hesse-Darmstadt: *Ludwig VI* 1674.
- Hildesheim (Bishopric): *Jodocus Edmund* 1691 Bust / Inscription.
- Hildesheim (City): 1680 City Arms / Inscription.
- Holstein: *Christian Albrecht* 1672 Cypher / Arms.  
*Hans Adolph* 1677 Palmtree / Arms.
- Isenburg-Büdingen: *Johann Ernst* 1670 Double Eagle / Arms.
- Jever: *Carl Wilhelm of Anhalt-Zerbst* 1690 Helmet / Cypher.
- Lauenburg: *Julius Franz* 1675 Cypher / Eagle, 1678.
- Lübeck (Bishopric): *August Friedrich of Holstein* 1678, 1678 Cypher / Arms.
- Lübeck (City): 1672 Double Eagle / City Arms.
- Magdeburg (Archbishopric): *August of Saxony* 1671, 1674, 1675, 1675 Bust /  
 Swan.
- Mainz: *Anselm Franz* 1690.
- Mansfeld-Vorderort *Franz Max & Heinrich Franz* 1675 St. George / Arms.
- Mecklenburg-Schwerin: *Christian Ludwig I* 1671 Cypher / Arms, 1676.

Montfort: *Johann VIII* 1679.

*Anton* (Administrator) 1690.

Münster: *Christoph Bernhard* 1678 Arms / Inscription.

*Friedrich Christian* 1692 Arms / Inscription.

Nassau: *Adolph* 1676.

Nordhausen: 1685 City Arms / Inscription.

Norheim: 1674 City Arms / Inscription.

Oldenburg: *Anton Guenther* 1659, 1676, 1690 Arms / Value.

Ostfriesland-Ritberg: *Franz Adolph Wilhelm* 1688 Arms / Value.

Oettingen-Oettingen: *Albrecht Ernst I* 1674, 1675, 1675 Cypher / Dog.

Paderborn: *Ferdinand* 1678.

*Hermann Werner* without date.

Palatinate (Electorate): *Carl Ludwig* 1662.

*Johann Wilhelm* 1690 (two varieties).

Palatinate-Neuburg: *Philipp Wilhelm* 1674.

Palatinate-Simmern: *Ludwig Heinrich* 1661.

Palatinate-Veldenz: *Leopold Ludwig* 1673.

Quedlinburg: *Anna Sophia* 1676, 1676 Cypher / Arms, 1677.

Ratzeburg: *Christian Ludwig I of Mecklenburg-Schwerin* 1672 Cypher / Cross.

Reuss Younger Line: *Heinrich I* 1678, 1678 Bust / Allegory, 1678 Crowned Heart / Inscription.

Rostock: 1676 City Arms / Inscription.

Saxony (Electorate): *Johann Georg III* 1691.

*Johann Georg IV* 1692 Bust / Four Coats of Arms.

Saxony-Coburg: *Albrecht III* without date Cypher / Arms, 1691.

Saxony-Eisenach: *Johann Georg* 1693 Bust / Four Crowned Cyphers and Arms.

Saxony-Eisenberg: *Christian* 1692.

Saxony-Gotha: *Friedrich I* without date, without date Bust / Inscription, 1673 Bust / Inscription, 1683 Bust / Inscription, 1690.

Saxony-Jena: *Bernhard* 1674.

Saxony-Saalfeld: *Johann Ernst* 1691.

Saxony-Weimar: *Johann Ernst II* 1675.

*Wilhelm Ernst* & *Johann Ernst the Younger*, 1690 Arms / Inscription.

Schwarzburg-Sondershausen: *Christian Wilhelm I* 1676, 1676 Arms / Value.

*Anton Günther II* 1676.

## Counterstamp of the Franconian Circle of 1693 85

Solms-Hohensolms: *Ludwig* without date Bust / Inscription.

This is called Sols-Rödelheim in the schedule.

Solms-Rödelheim: *Johann August* 1676.

Speyer: *Lothar Friedrich* 1665.

Stolberg: *Johann Martin* 1660 Arms / Stag.

*Christian & Ludwig* 1672 Arms / Stag, 1674 Arms / Inscription.

Stralsund: 1681 City Arms / Cross.

Strassburg (Bishopric): *Franz Egon* 1668.

Strassburg (City): without date City Arms / Lily, 1682 Lily / Inscription.

Sulz: *Johann Ludwig* 1676.

Sweden: *Charles XI* 1688.

Swedish Pomerania: *Charles XI* 1689.

Trier: *Johann Hugo* 1690, 1691.

### APPENDIX C

**L**IST of the guldiner declared as of full value in the schedule belonging to the memorandum of the City of Nuremberg, dated December 19, 1693, and in the memorandum itself.

The memorandum is not as complete as the schedule, and the coins appearing in the memorandum as well as in the schedule are designated by an asterisk.

Anhalt-Zerbst: *Carl Wilhelm* 1674, 1675 (two varieties), 1676\* (two varieties), 1677\*.

Hildesheim (Bishopric): *Jodocus Edmund* 1693 Arms / Inscription.

Leiningen-Westerburg: *Georg Wilhelm* 1676\* (two varieties).

Magdeburg (Archbishopric): *August of Saxony* 1675 (a different variety from that shown in appendix B), 1676.

Saxony-Gotha: *Friedrich* 1679 Crowned F / Arms.

Saxony-Meiningen: *Bernhard* 1687\*.

Saxony-Weimar: *Johann Ernst II* 1676\*, 1677\*, 1678\*, 1679\*.

Sayn-Wittgenstein: *Gustav* 1673\* Bust / Inscription, 1673\* Stag / Inscription, 1674, 1675 (two varieties), 1675 Cypher / Arms, 1676 (three varieties), 1677.

Sayn-Wittgenstein-Berleburg: *Georg Wilhelm* 1675 (two varieties), 1675 Cypher / Arms, 1676 (two varieties).

Both branches of Sayn are intermixed in the schedule, and in the memorandum

altogether ten "Werke" of Sayn guldiner are admitted as of full value, but except for the two marked by the asterisk the description in the memorandum is not specific enough to determine which of those in the schedule were meant.

Schwarzburg-Sondershausen: *Anton Günther II* 1675 (three varieties).

*Christian Wilhelm I* without date, 1675, 1675 Bust  
/ Inscription.

The memorandum mentions two "Werke" without giving the name of the prince; in addition it mentions one of Christian Wilhelm.

Solms-Hohensolms: *Ludwig* without date\* (a different variety from that in appendix B), 1676\*.

HERBERT J. ERLANGER

## TWO SILVER CUARTILLOS OF THE FIRST COINAGE OF AMERICA

(SEE PLATE XVI)

**A**MONG the rare examples from the Charles and Johanna coinage of the Mexico City mint presented recently to The American Numismatic Society by Mr. Wayte Raymond there are two silver quarter reales or cuartillos. Up to the present they are the only known specimens of this denomination of the first coinage of America. Although a great number must have been struck at the Mexico City mint during the first few years of its operation, no silver quarter reales of Charles and Johanna exist otherwise in any large foreign or American collections.

The decree for the founding of a mint in the city of Mexico was signed by Queen Johanna on May 11, 1535.<sup>1</sup> It authorized the viceroy, Mendoza, to establish a mint in the New World and provided for striking silver coins of three reales, two reales, one-real, one-half real and one-quarter real. In addition it set forth the designs of the various denominations. For the cuartillos it prescribed that "the quarter real pieces shall have on one side an I and on the other a K. . . ."<sup>2</sup>

When the new mint opened in the spring of 1536, Francisco del Rincon acted as its first assayer. As such he was responsible

<sup>1</sup> Real cédula de fundación de la casa de moneda de México, 11 de May de 1535, in the Archives of the Indies, 96-6-12. This cédula has not yet been printed in English, but appears in Vasco de Puga, *Provisiones, Cédulas . . . de esta Nueva España* (Mexico edición de "El sistema postal," 1878) t. I, 360-365; also in *Colección de documentos inéditos . . . de Ultramar* (Madrid, 1885), t. X, 264-271; J. T. Medina, *Monedas Coloniales Hispano-Americanas* (Santiago de Chile, 1919), pp. 54-57; and in C. Perez Bustamente, "Don Antonio de Mendoza, primer virrey de la Nueva España," in *Anales de la universidad de Santiago* (Santiago de Galicia), III (1928), pp. 127-128.

<sup>2</sup> Puga, Ultramar, and Medina have read the letter "K" as an "R." Bustamente reads it correctly as "K," as it is found on the coins.

for the quality of the coinage, and his initial "R" appears on the series from the three to the one-half real pieces. On the cuartillos, however, no assayer's initial appears on either side, possibly due to lack of space on its small flan. The details of the designs and lettering on one of these cuartillos are identical with those on larger pieces showing the assayer's "R." Since the details and lettering used on the next following series of the assayer Juan Gutierrez, which bear the initial "G," were made from dies prepared with a newly cut assembly of punches, this first cuartillo must belong to the first series struck under Rincon.

A fourth part of the weight of silver coined had been ordered to be minted into one-half and one-quarter reales. At the investigation of the Mexico City mint by Tello de Sandoval in 1545,<sup>3</sup> the assayer Juan Gutierrez testified on May 27 that ". . . there have been made some cuartillos of silver but no cuartillos are being made at the present time." And the next day, when Sandoval examined the dies in a locked chest where they were kept, there were, among others, the dies for striking silver cuartillos. By this time (1545) copper cuartos for four maravedis had replaced the tiny silver quarter reales. Both the silver and copper pieces mentioned were very unpopular with the native Indians, who violently disliked the copper and promptly threw the coins away. The silver pieces were so small that they were easily lost, and it is a sad commentary on modern numismatists that small pieces such as these are generally overlooked in their search for larger, showier coins. Although the famous three reales pieces of this first series are rare, examples are known in The American Numismatic Society, The Hispanic Society of America, the Guttag-P. K. Anderson, the F. C. C. Boyd, and

<sup>3</sup> The Licenciado Francisco de Tello Sandoval, in his investigation of the Viceroy Mendoza's regime, visited the mint and interrogated the officials and workers. The testimony gives much information on how the mint was operated. The report of the investigation is in manuscript in the Archives of the Indies at Seville (48-2-20/22) as *Visitación de la casa de la moneda de la ciudad de México hecha por el señor visitador—año de M.D.X.L.V.*

the Illanes collections. Only one silver cuartillo of this first series is known, that from the Wayte Raymond Collection. It measures 18 mm. and weighs 13.1 grains. A description of the piece follows:

*Obv.* A large, crowned K between rondules. The die-sinker's center mark shows as a small dot between the upright and the arm of the "K." There are rondules at either side of the center leaf of the crown and three rondules as jewels in band. The large "K" has evidently been utilized for the first letter of the legend, which reads, between circles of beads: AROLVS . ET . IO [AN], the last two letters being indistinct. The words are separated by rondules.

*Rev.* A large, crowned I with M at either side. The crown has rondules at either side of center leaf, but there are no jewels in the band. The legend reads, between circles of beads: [HI] : SPANIE : ET : IND :, the words separated by two rondules in pale.

PLATE XVI, 1.

Following the "R" series of coins came the early series with "G." No cuartillos for this series have ever been found, to the writer's knowledge.

The second cuartillo is of a later series. It differs from the first both in the style of the lettering and crown, and also in the fact that the assayer's registered initial "P" appears on the coin. It measures 17 mm. in diameter and weighs 12.3 grains, being both smaller and lighter than the first. A description of the piece follows:

*Obv.* A large, almost square K, crowned, between annulets. The legend, between circles of beads, reads: † K° AROLVS<sup>8</sup> ET<sup>8</sup> IOA.

*Rev.* A large, crowned I between the letters, M and P, for the mint and the assayer. The legend, between circles of beads, reads: HISPANI-ARVM° E (?).

PLATE XVI, 2.

The crown of the obverse differs from the crown on the reverse and they both differ from the crowns on the earlier cuartillo. The legend is also made with new punches on which the style of lettering has been changed from Gothic to Roman. In

fact, all punches used for the die of this "P" piece were redesigned after the earlier piece was struck.

It is impossible to date these pieces exactly, but the first one certainly did not come from the mint later than the summer of 1538. As the mint opened two years before, in the spring of 1536, it is safe to date this first cuartillo between 1536 and 1538.

The "P" cuartillo could have been issued under the assayer Pedro de la Membrilla, but the dates between which he served are not known. It is certain, however, that no cuartillos were being struck as late as 1545, and it is most likely that this piece was struck as early as 1539-40. The quarter real pieces were no doubt discontinued during 1540, as on November 12 of that year,<sup>4</sup> the viceroy ordered "that regardless of what the proportions were previously" the coinage of the Mexico City mint was to be: one-third in 4-reales, one-third in 2-reales, and one-third in 1-real and 1/2-real denominations. The cuartillos were not mentioned in the edict.

ROBERT I. NESMITH

<sup>4</sup> W. T. Meek, *The Exchange Media of Colonial Mexico* (N. Y., 1948), p. 98, n. 35.



# THE 1732 EIGHT REALES PIECE OR "PILLAR DOLLAR" OF THE MEXICO CITY MINT

(SEE PLATE XVI, 3)

**T**HE first coins of the Mexico City mint were struck by the hammer method, which was in general use at the time of its foundation in 1536. Two revolutionary changes were made at the mint in 1732. The advances in minting technique recently developed in Europe were introduced with the installation of a screw press, and simultaneously a change was made in the coin types.

The Pillars of Hercules appeared on the coins of Charles and Johanna struck in Mexico from 1536 to 1556. This design was not a part of the royal arms of Spain; it was a device of Charles I of Spain (Emperor Charles V of the Holy Roman Empire). After 1556 it was omitted in favor of the shield and cross design which was used during the reigns of Philip II through Philip V until the year 1732, when the design was changed to contain again the pillars with two hemispheres, crowned, between them. The motto, *PLVS VLTRA*, now appeared on ribbons entwined around the pillars. The edges of the coins were milled with a design of leaves. The milling became possible, as did the striking of truly circular coins, with the screw press, with which a collar was used around the blank. Pressure from a worm exerted by twisting a counter-balanced arm brought the dies together and squeezed the design of the die and collar onto the blank. In the older method pressure on the dies had been exerted by hammer blows.

During this same year, "cob" coins were still being struck at the mint. The transition from the "cob" or "macquina" pieces

lasted through 1734. Because of the immense amount of silver which poured through the mint, the radical change from crudely cut and pounded to well rounded and milled blanks could not be accomplished quickly. Setting up the necessary equipment and training personnel in its efficient use required time.

The number of "pillar" or "two hemisphere" pieces struck in the first year was exceedingly small, judging from their present day rarity. Less than ten specimens are known. One of these, formerly in the author's collection, is now in the cabinet of The American Numismatic Society.

ROBERT I. NESMITH

## SOME EARLY ARAB DINARS

(SEE PLATES XVII–XXI)

THE absence of mint-names on most of the gold dinars issued by the Umayyad and early 'Abbāsid Caliphs poses a challenging problem of attribution which has not heretofore received the attention it deserves. Where were these dinars struck? It would be a matter of great interest to know how many mints there were and just where they were located, for these are facts that would be of no little value in the study of the economic and political development of the early Arab empire.

Quite recently, in an article published in the *Bulletin de l'Institut d'Égypte*, M. Marcel Jungfleisch has brought forward some very ingenious arguments which will not fail, I am sure, to stimulate fresh interest in this question.<sup>1</sup> In the present article I submit my preliminary contribution to the discussion. A rare opportunity to study at first hand a large number of Umayyad and early 'Abbāsid dinars has furnished me with the necessary material: 185 pieces from the former Yacoub Artin Pasha Collection, acquired by Robert C. H. Brock in 1902 and given to the University of Pennsylvania Museum<sup>2</sup>; 80 pieces in the Museum of the American Numismatic Society; and 18 in the collection of

<sup>1</sup> "Les points secrets en numismatique: une innovation due aux Arabes (?)," in *Bulletin de l'Institut d'Égypte*, XXVIII (1945–1946), Cairo (1947), pp. 101–115. The first to broach the whole subject was Stanley Lane-Poole in a brief article entitled "On mint-characteristics of Arabic coins," in *NC*, 1873, pp. 54–59. Two years later E. T. Rogers gave special consideration to the problem (so far as the 'Abbāsid dinars are concerned) in his "Notice on the dinars of the Abbaside Dynasty" in *JRAS*, 1875, pp. 262–304.

<sup>2</sup> In the name of the American Numismatic Society and on my own behalf may I take this opportunity of expressing great appreciation of the kindness of the authorities of the University Museum in placing the whole Artin Pasha-Brock collection of oriental coins on temporary loan in our Museum. The series of Umayyad and early 'Abbāsid dinars in this collection is remarkable: between the years 77 and 208 of the Hijrah, only five of the "mintless" years are lacking.

the Hispanic Society of America, now on loan with The American Numismatic Society.

It is quite obvious that any attempt to assign mints to the dinars lacking mint-names must be based upon a large mass of material either examined at first hand or else accurately described or reproduced in the literature. A cursory study of the subject is enough to convince one that many, perhaps the majority, of the published "mintless" dinars have not been accurately described or reproduced—that is, the minute details upon which arguments and conclusions must rest have not, in general, been conscientiously reported. M. Jungfleisch appropriately draws attention to this fact. My good fortune, above referred to, imposes upon me the prime obligation of placing before the student this important body of material. While I doubt that any definitive conclusions can be reached before a great many more dinars have been accurately described,<sup>3</sup> I have in preparation for publication a detailed summary of the reliable material heretofore published, together with specific arguments for the attribution of over 100 of the 279 varieties of 'Abbāsid "mintless" dinars which I have been able to distinguish. These attributions (many of them quite tentative) are limited to the dinars issued after the year 169 A.H.; in other words I have attacked the problem at the easier and more vulnerable end, for in the last 30 years of the second, and the first two decades of the third centuries of the Hijrah, before mint-names begin to appear regularly on the 'Abbāsid dinars, there are many more

<sup>3</sup> How greatly simplified the problem would be if provenance and hoards were recorded. Consider, for example, the Baghdad hoard of 30,000 (?) dinars which came to light on the banks of the Tigris in 1897, a part of which is apparently still preserved unpublished in the Istanbul Museum (*cf.* E.v. Zambaur in his obituary of Halil Edhem, *Mitteilungen der Num. Gesellschaft in Wien*, II (XVIII), 7, 1940, p. 131). These were mostly 'Abbāsid dinars of later date, but there may have been earlier ones among them. In any case, here is an example of unpublished material which puts what has so far been described in the shade. Another example is the great Ermitage collection which has been inventoried only in the most summary fashion.

clues for attribution than there are in the earlier period. My intention in thus working backwards, so to speak, is to provide a firm basis for further study and for the eventual determination of criteria for the attribution of the earlier issues.<sup>4</sup>

It is my hope that the present article may induce readers to re-examine the pertinent dinars in their possession or under their care, and to publish, or otherwise make available, their findings. With such additional material I might anticipate making the study I have referred to a more useful one than it would otherwise be.<sup>5</sup> In preparing this publication I have taken into consideration over nine hundred dinars published in the scattered numismatic literature in addition to those described in the present article. This might appear to be an impressive number; but the figure is deceptive, for although I have excluded many whose descriptions are obviously incomplete or faulty, I have also probably included a very considerable number which should for the same reason, in a lesser degree, have been excluded.<sup>6</sup> It can, therefore, be readily appreciated that the accretion of additional completely reliable evidence cannot fail to have a favorable effect on the study and its conclusions.

Herewith the list of dinars in the three collections referred

<sup>4</sup> A detailed examination of M. Jungfleisch's arguments, with which I fear I cannot wholly agree, will appear in its proper place. In brief, he is disposed to see in certain of the "secret points" indicators of the initial letters of the names of the mints at which given dinars were struck. He confesses that "les déductions . . . comportent encore une bonne part d'hypothèse." Particulars aside, I feel that a much larger body of evidence must be assembled and that the argument must be built, as I say, upon a more secure foundation; and it is for these reasons that I am approaching the problem in the present fashion.

<sup>5</sup> I would welcome and gratefully acknowledge descriptions, casts or photographs forwarded to me at the Museum of The American Numismatic Society. By "the pertinent dinars" I mean all Umayyad dinars of the reformed type and 'Abbāsid dinars, including those bearing mint-names, down through the reign of al-Mā'mūn (218 A.H.). Weights would of course be desirable, and descriptions should include reference to points, symbols, and other peculiarities.

<sup>6</sup> Except when a writer has proved himself to be consistently conscientious, it is, for example, difficult or impossible to determine whether *all* the points and peculiarities have been described.

to. I have carried the inventory down through the reign of al-Mā'mūn, and have included the dinars with mint-names as they have an important bearing on the attribution of the earlier or contemporaneous dinars. UM=University Museum, Philadelphia; ANS=American Numismatic Society (MMA=permanent loan from the Metropolitan Museum of Art, New York); HSA=Hispanic Society of America, New York. Weights are in grams, diameters in millimeters. Where there is no description there is an absence of points or of other special characteristics. Those coins which are illustrated are indicated by an asterisk.

GEORGE C. MILES

# UMAYYAD

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*1	No date	4.35	20	Type of <i>Paris</i> I, no. 26; <i>Berlin</i> I, no. 21; Lane-Poole, <i>JRAS</i> 1875, no. 8.		UM
*2	77	4.21	20			UM
3	78	4.19	20			UM
4	78	4.17	20			ANS (Wood)
5	78	4.26	19			ANS (Newell)
6	78	4.16	19.5			HSA 537
*7	78	4.13	19.5			HSA 539
8	79	4.19	20			UM
9	79	4.25	19.5			ANS (Newell)
10	79	3.78	19.5			ANS (MMA-Durkee)
11	79	4.21	19			ANS (MMA-Durkee)
12	79	4.24	20			HSA 536
*13	79	4.18	20			HSA 538
14	79	4.17	19			HSA 544
*15	80	4.29 pierced	20		Central pt. under <i>a</i> and above <i>d</i> . <sup>7</sup>	UM
16	80	4.25	19		Central pt. under <i>a</i> and above space between <i>m</i> and <i>d</i> .	ANS (Newell)
17	80	4.14	19		Central pt. under <i>a</i> and above <i>m</i> .	HSA 540
18	80	4.14	19		Central pt. under space before <i>a</i> and above <i>m</i> .	HSA 541
19	80	4.20	19		Central pt. under <i>a</i> and above <i>m</i> .	HSA 542
*20	81	4.19	19	Pt. above <i>sh</i> , 3rd line.	Central pt. under <i>a</i> and above <i>m</i> . The word <i>fī</i> henceforth disappears from the date-formula.	UM
21	81	4.20	19		Central pt. under <i>a</i> and above space between <i>m</i> and <i>d</i> .	ANS (Newell)

<sup>7</sup> This point is in all probability a die-cutter's centering point; but as it quite frequently lies somewhat off center with respect to the die itself and might just possibly have some significance, I have rendered its exact position with reference to the letters of the word *aḥad* on the first line and those of the word *al-ṣamad* on the second.

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*22	82	4.19	19		: beneath 1st letter of <i>yūlad</i> .	UM
*23	83	4.19	19		: beneath 1st letter of <i>yūlad</i> midway between it and <i>n</i> of <i>al-dīnar</i> .	UM
24	84	4.17	19		: beneath 1st letter of <i>yūlad</i> midway between it and <i>d</i> of <i>al-dīnar</i> .	UM
*25	84	4.25	19		: beneath 1st letter of <i>yūlad</i> midway between it and <i>i</i> of <i>al-dīnar</i> .	HSA 543
26	85	4.23	19		Pt. over <i>q</i> of <i>ḡuriba</i> .	UM
27	86	4.19	19.5		Pt. over <i>q</i> of <i>ḡuriba</i> .	UM
*28	86	4.20	19		Pt. over <i>q</i> of <i>ḡuriba</i> . Pt. under <i>b</i> of <i>sab</i> '.	ANS
*29	87	4.23	19.5			UM
*30	88	4.18	20		: under 1st letter of <i>yūlad</i> , but removed from it and falling under <i>i</i> of <i>al-dīnar</i> .	UM
31	88	4.23	20		: under <i>w</i> of <i>yūlad</i> , but removed from it and falling under <i>i</i> of <i>al-dīnar</i> .	ANS (Newell)
*32	89	4.20	20		: under <i>w</i> of <i>yūlad</i> , but removed from it and falling under <i>i</i> of <i>al-dīnar</i> .	UM
33	89	4.27	20		: under <i>w</i> of <i>yūlad</i> , but removed from it and falling under <i>i</i> of <i>al-dīnar</i> .	ANS (Newell)
34	89	4.23	19.5		: under <i>w</i> of <i>yūlad</i> , but removed from it and falling under <i>i</i> of <i>al-dīnar</i> .	ANS (MMA—Mills and Farman)
35	90	4.26	19.5		Pt. under space between <i>r</i> and <i>b</i> of <i>ḡuriba</i> .	UM
*36	90	4.24	19		Pt. under space between <i>r</i> and <i>b</i> of <i>ḡuriba</i> .	ANS (Newell)
37	90	4.19	20		Pt. under space between <i>r</i> and <i>b</i> of <i>ḡuriba</i> .	ANS (MMA—Mills and Farman)
*38	91	4.23	19.5		Pt. under <i>s</i> of <i>hism</i> ; pt. under beginning of <i>b</i> of <i>ḡuriba</i> .	UM



39	91	4.14 pierced	19.5	Pt. under first third of <i>b</i> of <i>ḡuriha</i> .	UM
40	91	4.22	19	Pt. under first third of <i>b</i> of <i>ḡuriha</i> .	ANS (MMA- Mills and Far- man) UM
*41	91	2.12	15	بسم الله الرحمن الرحيم Large pellet beneath area. Margin: هذا النصف سنة احدى وتسعين Area as no. 41 without pellet. Margin: ضرب هذا الثلث سنة احدى وتسعين	UM
*42	91	1.02 pierced	14.5	لا اله الا الله وحده Margin to <i>al-haqq</i> .	UM
43	91	1.42	14	لا اله الا الله Margin as no. 41. As no. 42.	ANS (Green- wood) UM
44	92	4.10	19.5	Pt. under first third of <i>b</i> of <i>ḡuriha</i> . Digit writ- ten	UM
*45	92	4.24	20	Pt. under first third of <i>b</i> of <i>ḡuriha</i> ; pt. under <i>i</i> of <i>al-dīnar</i> . Digit written as above.	ANS (Newell)
*46	92	2.29 ringed	15.5	Area as no. 41. Margin: ضرب هذا النصف سنة ثنتين وتسعة [بن]	UM
*47	92	1.42	14	Area as no. 41 without pellet. Margin: ضرب هذا الثلث سنة ثنتين وتسعين	UM
48	93	4.20	19.5	Pt. under first third of <i>b</i> of <i>ḡuriha</i> .	UM
49	94	4.22	20		UM
50	94	4.18	20		ANS (Starosel- sky)
51	94	fitted for ring 4.18	20.5		HSA 13157

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*52	94	1.43	13.5	As no. 42.	Area as no. 41 without pellet. Margin: هذا الثلث سنة أربع وتسعين ضرب	UM
53	94	1.07	12	As no. 42.	Area as no. 41 without pellet. Margin: (sic) هذا الثلث سنة أربع وتسعين ضرب Despite the denomination <i>thulth</i> ( $\frac{1}{3}$ ), the weight is that of $\frac{1}{4}$ .	ANS (Newell)
54	95	4.21	20			UM
55	96	4.19	20			UM
56	96	4.15 pierced	20			ANS (Nies)
57	96	2.11	16.5	As no. 41.	Area as no. 41. Margin: هذا الثلث سنة ست وتسعين ضرب Despite the denomination <i>thulth</i> ( $\frac{1}{3}$ ), the weight is that of $\frac{1}{2}$ .	ANS (Newell)
58	96	1.57 ringed	14.5	As no. 42.	Area as no. 41 without pellet. Margin as no. 57.	UM
59	96	1.44	14	As no. 42.	As no. 58.	ANS (Newell)
60	97	4.23	21			UM
61	97	4.16	20.5			HSA 13158
62	98	4.18 pierced	20.5		Pt. under beginning of <i>b</i> of <i>duriba</i> .	UM
*63	99	4.29	20.5		Pt. under beginning of <i>b</i> of <i>duriba</i> .	UM
*64	99	1.45	13.5	As no. 42.	Area as no. 41 without pellet. Margin: هذا الثلث سنة تسع وتسعين ضرب	UM
65	99	1.42	14	As no. 42.	As no. 64.	UM
66	100	4.22	20		Pt. under first third of <i>b</i> of <i>duriba</i> .	UM
*67	100	2.10 pierced	15	As no. 41.	Area as no. 41. Pt. above and after <i>h</i> of <i>al-rahman</i> . Margin: ضرب هذا النصف سنة مئة	UM

*68	100	1.42	14	As no. 42.	Area as no. 42. Pt. above and after <i>h</i> of <i>al-raḥ-man</i> . ضرب هذا الثلث سنة مئة Margin: As no. 68, partly obliterated. Pt., if any, ob- scure. Pt. under beginning of <i>b</i> of <i>ḍuriba</i> . تنتين written Digit	UM
69	100	1.14 twice pierced	13	As no. 42.		UM
70	101	4.57 ringed & encased	20.5			UM
71	102	4.16 pierced	20			UM

No.	Date	Mint	Wt.	Di.	Obverse	Reverse	Collection
*72	102	Al-Andalus	4.30	20	As no. 41.	Area as no. 41, without pellet beneath. Pel- let (apparently) above <i>m</i> of <i>bism</i> . Margin: ضرب هذا الدينر بالاندلس سنة ثنتين ومئة Area as no. 41. Margin: ضرب هذا النصف بالاندلس سنة ثنتين ومئة Area as no. 41 without pellet. Margin: ضرب هذا الثلث بالاندلس سنة ثنتين ومئة As no. 74.	HSA 13159
*73	102	Al-Andalus	2.12	16.5	As no. 41.		HSA 13161
*74	102	Al-Andalus	1.43	14	As no. 41. Pt. after <i>a</i> of <i>allāh</i> in area.		HSA 13212
75	102	Al-Andalus	1.43	15	As no. 74.		ANS (Newell-ex Campaner?) UM
*76	103		4.21	20		Central pt. above <i>d</i> of <i>al-ṣamad</i> (?). Pt. under beginning of <i>b</i> of <i>ḍuriba</i> . As no. 76.	HSA 14067
77	103		4.12	19.5		Area as no. 41 without pellet. Pt. between <i>h</i> and <i>m</i> of <i>al-raḥman</i> .	HSA 13211
*78	103	Al-Andalus	4.29	19	As no. 41.	: beneath <i>i</i> of <i>al-raḥīm</i> midway between it and <i>n</i> of <i>al-Andalus</i> . Pt. under beginning of <i>b</i> of <i>ḍuriba</i> .	

No.	Date	Mint	Wt.	Di.	Obverse	Reverse	Collection
*79	103		1.43	12.5	As no. 42.	Area as no. 42. Pt. above and after <i>h</i> of <i>al-rahman</i> . Margin: ضرب هذا الثلث سنة ثلث ومئة	UM
80	103		1.42	13.5	As no. 42.	As no. 79.	ANS (MMA-Mills and Farman)
81	103		1.44	13	As no. 42.	As no. 79.	ANS (MMA-Mills and Farman)
82	104		3.17 clipped 4.20	18.5		Pt. under space between <i>r</i> and <i>b</i> of <i>ḡuriba</i> .	UM
*83	105		4.16	19.5		Central pt. above <i>d</i> of <i>al-ṣamad</i> . Pt. under beginning of <i>b</i> of <i>ḡuriba</i> . Cf. Casanova, <i>Inventaire</i> . . . <i>Princesse Ismaïl</i> , nos. 162-3, 3976-7.	UM
84 <sup>8</sup>	105	Ma'din amir al-mu'minin bi'l-Hijaz		20			ANS (Newell)

102

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
85	106	4.21	19.5			UM
86	107	4.19	19.5		: beneath first letter of <i>yūlad</i> midway between it and <i>d</i> of <i>al-dinar</i> .	UM
87	107	4.19	20		Central pt. over <i>d</i> of <i>al-ṣamad</i> . : beneath first letter of <i>yūlad</i> midway between it and <i>i</i> of <i>al-dinar</i> .	ANS (Starosselsky)
*88	108	4.22	20		Central pt. over space between <i>m</i> and <i>d</i> of <i>al-ṣamad</i> .	UM
89	109	3.98	19.5		As no. 89.	UM
90	109	4.20	19.5			ANS

<sup>8</sup> This remarkable issue will be more fully described and discussed in a forthcoming monograph.

91	110	4.23	19	Central pt. over <i>d</i> of <i>al-ṣamad</i> . 'Ten written 'ashr.	UM
*92	110	4.08	24	'Ten written 'ashrah. In size, weight, fabric and style this dinar is atypical. It is possibly a contemporary forgery, but more probably the issue of some temporary mint.	ANS
93	111	4.21	19.5	Digit written اثنى	UM
94	112	4.21	19.5		UM
95	113	3.99	19.5		UM
96	114	4.21	19.5		UM
97	115	4.20	20	Central pt. over <i>d</i> of <i>al-ṣamad</i> .	UM
*98	116	4.20	19.5		UM
99	117	4.20	20		UM
100	118	4.37	19.5		UM
101	119	4.02	19	Central pt. between <i>w</i> and <i>h</i> , second line of area.	UM
102	119	4.20	19.5		ANS (Newell)
103	120	4.19	20		UM
104	120	4.22	20		ANS (Newell)
105	121	3.72 pierced	20		UM
106	121	4.21	19.5	Central pt. partly obscured by <i>d</i> of <i>al-ṣamad</i> .	HSA 10625
*107	122	4.18	19.5		UM
108	122	4.24	20	Digit written as above. Central pt. over <i>d</i> of <i>al-ṣamad</i> .	ANS
109	123	4.20	20		UM
110	124	4.60 ringed	20		UM
111	124	4.20	20		ANS (Newell)

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
112	125	4.19	19.5			UM
113	125	4.20	19.5	As no. 107.		ANS (Newell)
114	125	4.20	19.5		As no. 109.	HSA 10626
115	126	4.15	20	As no. 107.		UM
116	128	3.89	19		Pt. under beginning of <i>b</i> of <i>ḍuriba</i> .	UM
117	129	3.87	19.5		Two central pts., one over <i>m</i> , one over <i>d</i> of <i>al-ṣamad</i> .	UM
*118	130	4.24	18.5		Central pt. over <i>d</i> of <i>al-ṣamad</i> (?).	UM
119	131	4.14 pierced	20			
*120	132	4.20	19.5		Digit written ثنين	UM

### 'ABBĀSID

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*1	132	4.25	19.5		Digit written ثنين	UM
2	133	4.00	19			UM
3	134	4.19	19			UM
4	134	4.20	19			ANS (MMA-Durkee)
5	135	3.95	18			UM
6	136	4.22	18			UM
7	136	4.17	19			ANS (Newell)
8	137	4.34 ringed	19			UM
*9	138	4.23	18		— ∴	UM
*10	139	4.21	17.5		— ∴ Pt. under beginning of <i>b</i> of <i>ḍuriba</i> .	UM
11	139	4.18	18.5			ANS (Newell)
12	140	3.16 clipped	17			UM

13	141	4.22	20	Pt. over <i>n</i> of <i>al-dīnar</i> . Digit written	UM
*14	142	4.20	18	ثنين	UM
15	143	4.20	19		UM
16	144	4.12	19		UM
*17	144	4.22	19	Pt. under <i>b</i> of <i>arb'</i> .	UM
18	145	3.91 pierced	18.5		UM
19	146	4.19	18	Pt. under beginning of <i>b</i> of <i>ḍuriba</i> .	UM
20	146	4.17	18	Pt. under beginning of <i>b</i> of <i>ḍuriba</i> .	ANS (Wyman)
*21	147	4.20	19		UM
22	148	3.79	19	Pt. after <i>rasūl</i> under space between <i>a</i> and <i>l</i> of <i>al-dīnar</i> .	UM
*23	149	3.99	18.5	Pt. after <i>rasūl</i> under <i>a</i> of <i>al-dīnar</i> .	UM
24	150	4.00	18.5		UM
25	150	4.19	19.5		ANS (Wood)
26	151	4.19	18.5		ANS (Newell)
*27	152	4.13	19	Pt. after <i>rasūl</i> under space between <i>dh</i> and <i>a</i> of <i>hadha</i> . Digit written	UM
28	152	4.22	18.5	ثنين as above.	ANS (Newell)
29	152	4.19	19.5	Digit written	ANS (Newell)
30	153	4.01	18		UM
31	153	4.20	19	Pt. after <i>rasūl</i> under <i>a</i> of <i>al-dīnar</i> .	ANS (Newell)
*32	153	4.10	18.5	Pt. under <i>l</i> of <i>rasūl</i> .	ANS (Wood)
33	154	4.00	19	Pt. after <i>rasūl</i> under space between <i>hadha</i> and <i>al-</i> .	UM
34	155	3.30 clipped	16.5	Pt. after <i>rasūl</i> under <i>dh</i> of <i>hadha</i> .	UM
35	156	4.16 pierced	19	Pt. after <i>rasūl</i> under space between <i>a</i> and <i>l</i> of <i>al-</i> .	UM

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*36	156	4.20	19.5		Pt. after <i>rasūl</i> under <i>l</i> of <i>al-dīnār</i> .	ANS (Newell)
37	157	3.85 clipped	19			UM
38	157	4.20	19		Pt. under last tooth of <i>s</i> of <i>sah</i> .	ANS (Torrey)
*39	157	4.20	20		Pt. under <i>kh</i> of <i>khamṣin</i> .	ANS (Newell)
40	158	3.87	18.5		Pt. under <i>kh</i> of <i>khamṣin</i> .	UM
*41	158	4.05	19		Pt. over <i>q</i> of <i>ḡuriba</i> . Pt. after <i>rasūl</i> under <i>l</i> of <i>al-dīnār</i> .	ANS (Newell)
42	159	4.22	18			UM
*43	160	4.14	19	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .	Pt. under <i>b</i> of <i>ḡuriba</i> .	UM
44	161	4.15	19	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .		UM
45	161	4.21	19.5	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .		ANS (Newell)
46	162	4.14	19	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .	Digit written ثنين	UM
47	162	4.22	19	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .	Digit written as above.	ANS (Newell)
*48	163	4.22	18.5	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .	Pt. under <i>b</i> of <i>ḡuriba</i> .	UM
49	163	4.20	19	Pt. in margin after <i>ra-sūl</i> under <i>h</i> of <i>allāh</i> .	Pt. under <i>b</i> of <i>ḡuriba</i> .	ANS (Newell)
50	164	3.45 clipped	17		· — Pt. under <i>b</i> of <i>arba</i> '.	UM
*51	164	4.21	19		· — Pt. under <i>b</i> of <i>arba</i> '.	ANS (Newell)
52	165	4.15	19		· —	UM
*53	165	4.20	19			ANS (MMA-Durkee)



*54	166	3.16 clipped	17	Pt. in margin after <i>ra-</i> <i>sūl</i> under <i>h</i> of <i>allāh</i> .	Pt. after <i>rasūl</i> under <i>l</i> of <i>al-dīnār</i> . Pt. under cen- ter of <i>rasūl</i> .	ANS (Newell) UM
55	166	4.15	18.5			
56	167	4.19	20	Pt. in margin after <i>ra-</i> <i>sūl</i> under 2nd <i>l</i> of <i>al-</i> <i>lāh</i> .	Pt. after <i>rasūl</i> under <i>a</i> of <i>al-dīnār</i> .	UM
*57	167	4.12	18.5		— ر	UM
*58	167	3.85	18.5		— Pellet between 2nd and 3rd line. Pt. under <i>b</i> of <i>sab</i> '.	UM
59	168	4.15	20	Pt. in margin after <i>ra-</i> <i>sūl</i> under 2nd <i>l</i> of <i>al-</i> <i>lāh</i> .	Pt. after <i>rasūl</i> under <i>a</i> of <i>al-dīnār</i> .	UM
*60	168	4.20	20	Pt. in margin after <i>ra-</i> <i>sūl</i> under 2nd <i>l</i> of <i>al-</i> <i>lāh</i> .	Pt. over <i>r</i> of <i>al-dīnār</i> . Pt. after <i>rasūl</i> under <i>a</i> of <i>al-dīnār</i> .	ANS (Newell)
*61	168	4.22	19		— Pt. after <i>rasūl</i> under <i>dh</i> of <i>hadha</i> .	ANS (Newell)
*62	169	4.20	19	Pt. over <i>r</i> of <i>li-yuz̤hi-</i> <i>rahu</i> .	Pt. under <i>b</i> of <i>ḡuriba</i> . Pt. under last tooth of <i>s</i> of <i>tisa</i> '.	UM
*63	169	4.19	18.5	Pt. in margin after <i>ra-</i> <i>sūl</i> under <i>h</i> of <i>allāh</i> . Pt. over <i>r</i> of <i>li-yuz̤hi-</i> <i>rahu</i> .	Pt. under <i>b</i> of <i>ḡuriba</i> . Pt. under last tooth of <i>s</i> of <i>tisa</i> '.	UM
64	169	4.18	19.5	Pt. in margin after <i>ra-</i> <i>sūl</i> under <i>h</i> of <i>allāh</i> . Pt. over <i>r</i> of <i>li-yuz̤hi-</i> <i>rahu</i> .	Pt. under <i>b</i> of <i>ḡuriba</i> . Pt. under last tooth of <i>s</i> of <i>tisa</i> '.	ANS (Newell)
65	169	4.19	20			ANS (Newell)
66	170	4.13	19			UM
*67	170	4.12	19		— على	UM

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*68	170	4.22	19		بار	ANS (Newell)
*69	171	4.21	18.5			ANS (Newell)
*70	171	3.99 clipped	18		علي موسى	UM
71	172	3.86 clipped	17.5		"	UM
72	172	4.17	18		اننتين	UM
*73	173	4.20	18.5		Digit written as above.	UM
74	173	4.22	18		عمر	UM
75	173	4.15	18		"	ANS (Newell)
76	174	4.18	18.5		عمر	ANS (Newell)
*77	174	4.15	18		داود	UM
78	175	4.00	18		موسى	UM
79	175	3.85	18.5			UM
80	177	4.23	18.5			UM
*81	177	4.20	18		Pt. under <i>b</i> of <i>sab</i> .	UM
82	177	4.03	18		جعفر	ANS (Newell)
*83	177	3.65	18		"	ANS (Starosselsky)
				Final letter of <i>bi'l-hudā</i> is free-standing bar in field.	Decade clearly written (n writ- ten like isolated <i>r</i> ); hundred written مائة	
*84	178	4.19	18		جعفر	UM
85	178	3.90	18		Pt. over <i>n</i> of <i>thamān</i> . Pt. over <i>n</i> of <i>thamān</i> .	UM

86	179	4.21	17.5	جفر	UM
87	179	4.20	19	"	ANS (MMA-Durkee)
88	179	3.79	18.5	Inner margin: al-Amin.	UM
89	180	4.20	19	جفر	UM
90	181	4.20	18	"	UM
91	182	4.17	18	" Digit written	UM
		pierced		اثنين	
*92	182	4.13	19.5	Inner margin: al-Amin. Digit written as above.	UM
93	183	4.21	18	جفر	UM
94	183	4.05	19.5	Inner margin: al-Amin.	ANS
95	184	4.17	18	جفر	UM
*96	184	3.85	19	Inner margin: al-Amin.	UM
97	184	4.20	19	جفر	UM
98	185	4.09	18	Inner margin: al-Amin.	UM
99	185	4.04	19	جفر	UM
		pierced		Inner margin: al-Amin.	
100	185	4.00	19.5	Inner margin: al-Amin.	ANS (Newell)
101	186	4.17	19	جفر	UM
		pierced		Inner margin: al-Amin. Pt. after <i>rasul</i> under	
*102	186	3.59	17	2nd <i>m</i> of <i>Muhammad</i> in inner margin.	UM
103	186	clipped		Inner margin: al-Amin. Pt. after <i>rasul</i> under	ANS (Newell)
		4.19	19.5	2nd <i>m</i> of <i>Muhammad</i> in inner margin.	
*104	187	4.03	18	4	UM

No.	Date	Wt.	Di.	Obverse	Reverse	Collection
*105	187	4.22	18.5		خلد	UM
106	187	4.10	18.5		"	UM
*107	188	3.90	18.5		Pt. over <i>n</i> of <i>thamān</i> .	UM
108	189	4.11	18.5		للخليفة	UM
109	190	4.10	17.5		"	UM
*110	190	4.16	18		"	ANS (Newell)
111	190	3.63	17		4	UM
112	191	4.06	18		للخليفة	UM
113	192	4.20	19		" Digit written as above.	UM
114	192	4.10	18		4 Digit written as above.	UM
115	193	4.00	18		للخليفة	UM
116	194	4.15	18		للخليفة	UM
*117	194	3.80	19		ربى الله	UM
*118	194	4.17	19		ربى الله العباس	ANS
*119	195	4.09	18		للخليفة الامين	UM
120	195	3.77 pierced	18.5		ربى الله العباس	UM

*121	196	3.76 pierced	19	ربي الله	UM
122	196	3.70	18	ربي الله العباس	UM
*123	196	4.10	18	“	ANS (Starosselsky)
*124	196	4.24	17.5	للخليفة الإمام	UM
*125	196	4.25	18	للخليفة المأمون	UM
*126	196	3.72		“ Decade wrongly written	UM
*127	197	4.20	17.5	للخليفة المأمون	UM
*128	198	3.99	18	الإمام المأمون Pt. over <i>n</i> of <i>thamān</i> .	UM

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No.	Date	Mint	Wt.	Di.	Obverse	Reverse	Collection
129	198		4.07	18			ANS (Starosselsky)
*130	199		4.15	19.5	العراق	له ذو الرياستين ..... بسم الله الرحمن الرحيم	ANS (Newell)
*131	199		3.30	17.5	Final letter of <i>bi'l-</i> <i>hudā</i> is free-standing bar in field.	الخليفة المأمون Decade clearly written	ANS

No.	Date	Mint	Wt.	Di.	Obverse	Reverse	Collection
*132	199	Miṣr	4.12 pierced	18	المطلب	ذو الرياستين الفضل	UM
133	199	Miṣr	3.68	17	"	"	UM
*134	200		3.85	18.5	Pt. in margin after <i>rasūl</i> under 2nd / of <i>allāh</i> .	ذو الرياستين له	UM
*135	200	Miṣr	4.13	18	السرى	له طاهر ذو الرياستين	UM
*136	201		4.07 pierced	19.5	العراق ع	له ذو الرياستين	UM
*137	201		3.75	17	السرى	له طاهر ذو اليمينين	UM
137a	201	Miṣr	3.72	18	"	"	ANS (Starosel- sky)
*138	202		3.86	20	العراق	له ذو الرياستين اثنين written	UM
*139	202		4.20	18	المغرب	له الفضل ذو الرياستين Margin: بسم الله ضرب هذا الدين سنة اثنين ومتين السرى	UM

140	203		18	العراق	18	له ذو الرياستين	UM
*141	203		4.17		20	له ذو الرياستين	ANS (Newell)
*142	203		4.10		17.5	له ذو الرياستين	UM
*143	203		3.46	محمد	17.5	له ذو الرياستين	ANS
*144	203	Miṣr	4.24	المغرب	18	له طاهر السري of <i>al-Sari</i> .	UM
*145	204	Miṣr	4.04 pierced	“	18	له طاهر السري	UM
146	204	Miṣr	4.20	“	18	“	ANS (Newell)
*147	205		4.11 pierced	“	19.5	“	UM
*148	205		3.46	الافريقي	18	“	ANS
*149	206		4.24	عيد الله بن السري	18	للخليفة المأمون	UM
150	207		4.15	“	18.5	“	UM
*151	207		4.05	Outer margin, Qur- rān XXX, 3-4. Inner margin, date (no mint).	18	له Margin, Qurʾān IX, 33.	UM

No.	Date	Mint	Wt.	Di.	Obverse	Reverse	Collection
152	208		4.14	19	Outer margin, Qur'an XXX, 3-4. Inner margin, date (no mint).	له Margin, Qur'an IX, 33.	UM
*153	209	Miṣr	4.01	17.5	عيد الله بن السرى “	للخليفة المأمون “ 3 pts. over <i>b</i> of <i>ḥuriba</i> ; tiny circle over <i>s</i> of <i>sanah</i> . Decade written 'ashr.	UM
*154	210	Miṣr	4.19	17.5		Area as above.	UM
*155	211		4.19	17		Area as above. Decade and digit written: اثنتى عشرة	ANS (Newell)
156	212		4.01	17.5		للخليفة المأمون	UM
*157	213		4.07	18		للخليفة المأمون	UM
*158	214	Miṣr	4.19	20	Outer margin as no. 151. Inner margin, mint and date.	Margin, Qur'an IX, 33, through <i>al-mushrikūna</i> .	UM
*159	215	Miṣr	4.11	19.5	As no. 158.	له Margin as no. 158.	UM
160	216	Miṣr	4.16	20	As no. 159.	As no. 159.	UM
161	217	Miṣr	4.18	20	As no. 159.	As no. 159.	ANS (Newell)
*162	218	Miṣr	3.87	21	As no. 159. Decade and digit written: ثمانى عشرة	As no. 159.	UM



## A COLLECTION OF LETTERS WRITTEN TO STANLEY LANE-POOLE

TO anyone familiar with Islamic numismatics there is no name more revered than that of Stanley Lane-Poole (1854–1931). His ten-volume *Catalogue of Oriental Coins in the British Museum* (1875–1890) is the indispensable guide and companion of every collector and of every serious student in the field; it has no compeer or rival. No other catalogue of Muslim coins approaches it in combined comprehensiveness and detail. In other catalogues and in the vast scattered numismatic literature there are, to be sure, more complete studies of the coinages of individual dynasties and regions, but it is to Lane-Poole's immense compendium that one first turns for the attribution of the great majority of Islamic coins. Nor was this catalogue by any means his only important contribution to the numismatic field, for in addition to the countless valuable articles which he wrote for numismatic and oriental journals, he was the author of the three volumes on Muhammadan coins in the British Museum *Catalogue of Indian Coins*, the *Catalogue of the collection of Arabic Coins preserved in the Khedivial Library at Cairo*, the Bodleian Library catalogue, and the *Catalogue of Arabic Glass Weights in the British Museum*.

Lane-Poole's prodigious labors in the history of eastern coinage may cause the numismatist to overlook his contributions in an allied but wider field, that of Islamic history in general. He was an incredibly prolific writer. *The Mohammadan Dynasties*, an epitome of his reading and research—and an outgrowth of his numismatic studies—lies on the desk of every scholar concerned with the history of Islam. His biographies, each a separate volume, of historical Muslim personages—Saladin, Babur and Aurangzib, for example—and his regional histories such as (to

name only a few) *A History of Egypt in the Middle Ages*, *Arabian Society in the Middle Ages*, *The Story of the Moors in Spain*, *The Story of Turkey*, *The Barbary Corsairs*, and *Mediaeval India*, although in some respects outdated, are still not only readable but useful and important. Nor—and this seems almost fantastic—were his interests and energies limited to purely oriental studies: his more general works include, for example, biographies (some of them in two volumes) of Lord Stratford de Redcliffe, the Great Ambassador, of Sir George F. Bowen, Governor of Queensland, of Sir Harry Parkes, the diplomatist, of Sir Richard Church, the famous “Greek general,” and of General Francis Rawdon Chesney, the explorer.

The association of Lane-Poole’s name with another and a greater work than all these, Lane’s *Arabic-English Lexicon*, is, one might say, the very keystone of his whole life’s career. Born the eighteenth of December, 1854, Stanley Lane Poole<sup>1</sup> was the son of Edward Stanley Poole, grandson of Edward Richard Poole, and great-nephew of that giant of Arabic scholarship, Edward William Lane, author of the monumental dictionary. To the circumstance of Lane’s somewhat delicate health we owe not only his own but Lane-Poole’s interest in the East, for it was the search of employment in a less rigorous climate than London’s that took Lane to Egypt in 1825. There he found his abiding interest and there he gathered the immense body of material for his famous works, the *Account of the Manners and Customs of the Modern Egyptians*, his translation of the *Arabian Nights*, and finally the great dictionary, the completion of which, in his last days, he expressly deeded to his great-nephew. The relationship between Edward Stanley Poole and his uncle had been peculiarly close, for as a boy in 1840, along with his brother, Reginald Stuart Poole, later for so many years the distinguished Keeper of the Department of Coins and Medals

<sup>1</sup> It was not until 1881 that he hyphenated his name.

in the British Museum, and his mother, Sophia Lane Poole, authoress of *The Englishwoman in Egypt*, he had lived in the bosom of the elder Arabist's family in Cairo. This intimacy, and the guidance and inspiration that it fostered, continued into the next generation, for upon the early death of Edward Stanley Poole, who was to have become Lane's intellectual heir, the children were taken into the household of their great-uncle, who "ever bore himself as a father" to them.<sup>2</sup> Thus it was that Stanley Lane-Poole lived and grew in an atmosphere imbued with the traditions of scholarship and particularly rich in the deepest knowledge of Arabic history and philology. So congenial to him was this atmosphere that he wrote his first article for the *Numismatic Chronicle* at the age of eighteen and produced nearly a dozen other important *opuscula* in the next three years. It seems scarcely credible, in our less precocious days, that the first volume of the British Museum *Catalogue of Oriental Coins* was written before its author was twenty-one.

Before Lane-Poole, in the field of Islamic numismatics, and no longer living when he began his famous *Catalogue*, were the great pioneers of the late 18th and early 19th centuries—de Sacy, Fraehn, Castiglioni, Assemani, de Saulcy, Soret and others. Their heirs, a great generation of European scholars—orientalists, archaeologists, philologists, historians and numismatists—were Lane-Poole's elder contemporaries, some of them already in their declining years when he began to write. To them he turned for help and counsel and into their company he was soon received. It is the recollection of Lane-Poole's association with some of these scholars of the mid-19th century that is the occasion of this article.

Early in 1947 it came to my attention that a collection of manuscript letters addressed to Lane-Poole, and mostly on nu-

<sup>2</sup> Stanley Lane Poole's Memoir of Edward William Lane in the *Arabic-English Lexicon*, Book I, Part 6 (London, 1877), p. xxxii.

mismatic subjects, had been offered for sale by a bookdealer in Cairo. These letters, ninety-one in all, have now been acquired by The American Numismatic Society and have been entered in the library. Written between 1873 and 1881, they are in the handwriting of eighteen of those distinguished European orientalists to whom I have referred above. The list of correspondents reads like a roster of the great names in oriental, especially Islamic, archaeology and history: Fleischer, Dorn, Amari, Tornberg, Longpérier, Blau, Codera—these are some of the pre-eminent names. The letters are full of interesting observations on numismatic problems and contain a wealth of detail on a variety of obscure subjects. While much of the substantive material in them eventually found its way into their authors' and Lane-Poole's writings, some of it remains unpublished and is probably worthy of publication; at all events, the interest of these "workshop" notes, particularly to the student of Islamic numismatics, is alive and real. In bringing this first notice of the collection to the scholarly world I propose only to list the correspondents and to reproduce two of the shorter and less technical letters. These are the writers:<sup>3</sup>

MICHELE AMARI (b. Palermo, 1806; d. 1889): Italian patriot and orientalist, author of *La Storia dei Musulmani in Sicilia*, *Biblioteca Arabo-Sicula*, etc. (1 letter)

ERNST RITTER VON BERGMANN (b. 1844; d. 1892): Egyptologist and orientalist, Custodian of the Münzcabinette in Vienna, author of *Die Nominale der Münzreform des Chalifen Abdulmelik*, etc. (1 letter)

OTTO HERMANN BLAU (b. Nordhausen, 1828; d. 1879): Attaché of the Prussian Embassy in Constantinople, German Consul in Bosnia and Herzegovina, and in Odessa, author of the

<sup>3</sup> Biographical information is from a variety of sources, too numerous to cite here, but believed to be authoritative.

catalogue of oriental coins in the Odessa Museum and of numerous philological and numismatic articles. (6 letters)

FRANSISCO CODERA Y ZAIDÍN (b. Fonz, Aragon, 1836; d. 1917): Professor at the Universities of Granada and Zaragoza, Catedrático at the Universidad Central, author of *Tratado de numismática árabe-española*, of *Decadencia y desaparición de los Almoravides en España*, and of many numismatic articles. (1 letter)

BERNHARD DORN (b. Scheuerfeld bei Koburg, 1805; d. 1881): Professor of Oriental Languages, History and Geography at Kharkov and St. Petersburg, Director of the Asiatic Museum and Librarian of the Imperial Library, St. Petersburg; author of *Das Asiatische Museum*, of *Muhammedanische Quellen zur Geschichte der südlichen Küstenländer des Kaspischen Meeres*, of *Beiträge zur Kenntnis der iranischen Sprachen*, editor of Fraehn's posthumous works, etc., etc. (3 letters)

HEINRICH LEBERECHT FLEISCHER (b. Schandau, Saxony, 1801; d. 1888): The great Arabist, Professor of Oriental Languages at the University of Leipzig from 1836 until his death; author and editor of numerous standard texts and translations of Arabic historical, philosophical and philological works. (4 letters)

JOSEF KARABACEK (b. Graz, 1845; d. 1918): Professor of Oriental History at the University of Vienna, Director of the Hofbibliothek, author of many important archaeological studies, pioneer in Arabic papyrology, editor of the Erzherzog Rainer Fayyum papyri. (1 letter)

LUDOLF KREHL (b. Meissen, 1825; d. 1901): Professor of Oriental Languages and Chief Librarian at the University of Leipzig, editor of Arabic texts and author of several outstanding works on Arab paganism and Islam, including *Über die Religion der vorislamischen Araber* and *Das Leben und die Lehre des Muhammed*. (1 letter)

HENRI LAVOIX (b. Nant, Aveyron, 1820; d. 1892): Conservateur of the Département des Médailles et Antiques in the Bibliothèque Nationale, author of the *Catalogue des Monnaies Musulmanes de la Bibliothèque Nationale*. (4 letters)

HENRI-ADRIEN PRÉVOST DE LONGPÉRIER (b. Paris, 1816; d. 1882): Brilliant archaeologist, epigraphist and linguist in many ancient oriental fields, author of *Essai sur les médailles des rois perses de la dynastie Sassanide*, *Mémoires sur la chronologie et l'iconographie des rois parthes arsacides*, and of more than 400 learned articles, joint editor of the *Revue Numismatique* from 1856 to 1877. (4 letters)

OTTO LOTH (b. Meissen, 1844; d. 1881): Arabist, Professor at the University of Leipzig, compiler of the catalogue of Arabic manuscripts in the India Office, editor of the *Zeitschrift der Deutschen Morgenländischen Gesellschaft* from 1873 to 1879. (1 letter)

AUGUST F. M. VAN MEHREN (b. 1822; d. 1907): Danish orientalist, Professor of Semitic and Oriental Philology at the University of Copenhagen, editor and translator of Arabic texts. (4 letters)

WILHELM PERTSCH (b. 1832; d. 1899): Orientalist, Chief Librarian of the Herzogliche Bibliothek in Gotha, compiler of many catalogues of Arabic, Persian and Turkish manuscripts in Berlin and Gotha. (1 letter)

WILLIAM FRANCIS PRIDEAUX (b. London, 1840; d. 1914): British Staff Corps officer and civil servant in the Foreign Department of the Government of India, one time Acting Agent and Consul General at Zanzibar and in the Persian Gulf. (5 letters)

HENRI JOSEPH SAUVAIRE (b. 1831; d. 1896): French Consular official in the Near East and North Africa, author of *Matériaux pour servir à l'histoire de la numismatique et de la métrologie musulmanes*, and of many other numismatic and historical treatises and articles. (25 letters)

JOHANN GUSTAV STICKEL (b. Eisenach, 1805; d. 1896): Professor of Oriental Languages at Jena, author of *Handbuch zur Morgenländischen Münzkunde* and of numerous important numismatic articles. (10 letters)

W. (VLADIMIR GUSTAVOVICH) TIESENHAUSEN (b. Narva, Estonia, 1825; d. 1902): Eminent Islamic numismatist and archaeologist, author of the great compendium *Moneti vostochnavo Khalifata* and of many other numismatic and archaeological publications. (16 letters)

CARL JOHAN TORNBORG (b. Linköping, 1807; d. 1877): The famous Swedish Arabist, Professor of Oriental Languages and Rector at the University of Lund, editor of many Arabic texts including the monumental edition of Ibn al-Athîr, and author of *Numi Cufici Regii Numophylacii Holmiensis*. (3 letters)

I have selected two letters of general, non-technical interest for reproduction here—one of Fleischer's containing a moving and eloquent tribute to Edward William Lane, and the other a short but delightful letter from Longpérier. Fleischer's letter of sympathy follows. It was, I feel fairly certain, to Fleischer that Lane-Poole referred in his Memoir of Lane when he wrote, "The greatest Arabist of Germany used to send Lane from time to time monographs of his own inscribed with the words 'Unserem Grossmeister' and the like; and his homage is but an example of the reverence felt by all for the 'Schatzmeister der arabischen Sprache.'"<sup>4</sup>

Dittersbach b. Kamnitz (Böhmische Schweiz) 23 Aug. 1876.

LIEBER HERR,

Zum Genusse der Universitätsferien und zur Stärkung meiner Gesundheit hatte ich mich mit meiner Frau so eben in diesem romantischen Erdwinkel niedergelassen, als die Trauerkunde in Ihrem mir aus Leipzig nachgeschickten Briefe vom 19. d. M. mich mit erschütternder Gewalt

<sup>4</sup> *Op. cit.*, p. xxxvi.

traf. Hier in der Abgeschlossenheit von der gewöhnlichen Geschäften und vom Geräusche der Welt trat die Grösse des Hingeschiedenen als Mensch und als Gelehrter, eben dadurch aber auch die Grösse unserer Verlustes ganz und voll vor meinen Geist, und ich konnte mich nicht der tiefsten Wehmuth erwehren, wenn ich bedachte, wie dieses rückhaltslos der Wissenschaft gewidmete Leben voll Mühe und Arbeit noch überdies so oft und so lange durch körperliche Leiden getrübt war. Aber trotz alle dem: es war ein *glückliches* Leben! Denn wo ein hoher begeisternder Lebenszweck alles Wollen und Wirken durchdringt und zu einem harmonischen Ganzen vereinigt, da erhebt sich der Geist über alles Aeusserliche und ist im Bewusstsein seines Adels und seiner Kraft glücklich. Welcher zeitgenössische Gelehrte aber wäre zu diesem Bewusstsein in höherem Grade befähigt gewesen als Lane?—Und dabei doch diese Bescheidenheit, diese Milde des Urtheils über tief unter ihm Stehende, diese Anerkennung auch des geringsten Beitrags zur Erkenntniss der Wahrheit! Als ich Ihnen unter dem 15. März dieses Jahres eine kleine Berichtigung für sein Wörterbuch mitgetheilt hatte, empfing ich durch Ihre Antwort vom 5. Mai einen eigenhändigen Beischluss von ihm, worin er mir einfach und ruhig seine Beistimmung aussprach. Jetzt ist mir dieses Autograph doppelt theuer, als ein Kleinbild des ganzen grossen Mannes. Ich werde es aufbewahren wie eine heilige Reliquie und als solche meinem ältesten Sohne hinterlassen, wenn ich fürher oder später unserem Seligen nachfolge, dessen Hintritt für mich ein um so bedeutungsvolleres *Memento mori* ist, als er noch ein halbes Jahr jünger war als ich.

Den Ausschnitt aus den Times werde ich, Ihrer Absicht entsprechend für die Zeitschrift der D. M. G.<sup>5</sup> verwerthen. Wer es vielleicht noch nicht ganz weiss, der soll es erfahren, welch glänzenden Stern das Verzeichniss der Ehrenmitglieder unserer Gesellschaft mit dem Namen *Edward William Lane* verliert.

Mit der Bitte um Ihre fernere Freundschaft und mit der Zusicherung meiner aufrichtigsten Hochachtung bin ich

Ihr ergebenster  
H. L. FLEISCHER

With very few exceptions the letters in the collection are in French or German. Longpérier's quaint letter, one of four, is, unlike his other communications, written in English:

<sup>5</sup> Zeitschrift der Deutschen Morgenländischen Gesellschaft.



*Paris, 18th. Jan. 1877.  
50, rue de Londres*

MY DEAR SIR,

I am expressly ordered by our Academy<sup>6</sup> to return to you their best thanks for the second volume of your Arabic Catalogue,<sup>7</sup> which, at all events, I have inscribed for the "Concours de Numismatique."

You now may be positive I had read L. Blancard's charming memoir (as you term it, and I agree perfectly with you) on the Millarès.<sup>8</sup> Indeed Blancard is a spirited south numismatic gentleman, and, I dare say, an happy one, since he can at every hour plunge his two eyes in the Manduel store of records,<sup>9</sup> a pleasure not allowed to us northern people. I found a great delight in the examination of his discovery, if not in his Arabic which I thought proper to leave in a friendly shadow. Now, I am by my fire's corner studying the excellent translation of Land's Principles of hebrew grammar,<sup>10</sup> another achievement of the learned Poole dynasty; a work made so clear, so much comprehensive of the matter that, were I only a half hundred years less old, I feel I would soon grow an hebraic scholar.

Yours very truly  
LONGPÉRIER

GEORGE C. MILES

<sup>6</sup> Académie des Inscriptions et Belles-Lettres.

<sup>7</sup> Stanley Lane Poole, *The Coins of the Mohammadan Dynasties in the British Museum, Classes III-X*, London (1876).

<sup>8</sup> Louis Blancard, *Le Millarès, Étude sur une monnaie du XIII<sup>me</sup> siècle imitée de l'arabe par les chrétiens pour les besoins de leur commerce en pays maure*, Marseille (1876).

<sup>9</sup> "Les écritures commerciales de la maison Manduel, de Marseille, confisquées en vertu d'un jugement de la cour, en 1263, et déposées depuis lors dans les archives des Comtes de Provence, que l'on conserve actuellement à la préfecture des Bouches-du-Rhône. . . ." (*Ibid.*, p. 8)

<sup>10</sup> Reginald Lane Poole's translation of Jan Pieter Nicholaas Land's *Principles of Hebrew Grammar, Part I*, London (1876). Reginald Lane Poole was Stanley's younger brother born in 1857, died in 1939. He was a distinguished historian, Fellow of Magdalen College, Oxford, Keeper of the University Archives, Curator of the Bodleian, author and editor of innumerable works dealing with the history of the Middle Ages, Editor of the *English Historical Review*.



## COINS FROM AXUM

(SEE PLATE XXII)

IN 1944 Mr. Harold B. Brown, returning to the United States from an eighteen months' stay in Eritrea, brought with him an interesting collection of bronze and silver Axumite coins. Shortly before the British authorities had closed the area to visitors because of increasing native hostility to all whites, Mr. Brown received permission to visit the site of the old temple at Axum. While there he acquired from some native boys a coin which, after cleaning and examination, aroused his interest. Unable to revisit the temple himself, Mr. Brown sent his native house boy back twice, and in that way managed to collect the fifty coins he brought home with him. His boy refused to make further trips because slave raiders were increasingly active in the district. The native boys find the coins by sifting through their fingers the sand and dirt around the temple site. It is interesting to speculate about the finds which might be made with more thorough and modern methods of search. Mr. Brown has stated that there are many old temple sites within a two hundred mile radius of Axum. This would evidence a virgin field for archaeological research.

Of the fifty coins brought back, all of which were badly corroded and in need of cleaning before attribution was possible, the Society now has four silver and sixteen bronze coins. These were acquired by purchase in 1947. Two silver and five bronze coins show traces of gold plate or inlay as part of the decoration.

The noting of these coins has been made not only to acquaint the Society's membership with a new accession, but more particularly to call attention to four new pieces which are not described in the studies of Anzani.<sup>1</sup>

<sup>1</sup> Anzani, Arturo, "Numismatica Axumita," in *Rivista Italiana di Numismatica e Sci-*

A brief description of each of the twenty coins follows. It will be seen from the descriptions that Nos. 2 and 3 are similar in design to known specimens, but are in bronze rather than in silver. No. 18, in addition to being silver instead of bronze, has a crescent and a dot added in the field of both the obverse and the reverse. No. 20 is a new type on which the king's name is clearly legible. A comparison with the coins of both kings seems to indicate that it is a coin of Hataz II rather than Hataz I.

### PAGAN PERIOD

#### *OUSANAS I*, End of Third to beginning of Fourth Century

1. Part of circular legend  $\cup$ BACIA $\epsilon$ YCOYCANAC (King Ousanas) around small bust of king to right.

*Rev.* Parts of circular legend  $\cup$ A $\Xi$ WMITWNBICIFICENE (Of the Axumites of the line of Ghisene) around a smaller bust to right.

Æ. 1.59 gr. 15 mm. Cf. Anzani 18.

#### *EZANAS*, Early Fourth Century

2. HZA NAC (Ezanas) separated by small bust of king to right, all within a circle.

*Rev.* BACI  $\Lambda$  $\epsilon$ YC (King) separated by a smaller bust of king to right, all within a circle.

Æ. 1.16 gr. 12 mm. Similar to Anzani Supplement 16, but bronze instead of silver.

3. Similar to No. 2, but larger.

Æ. 1.20 gr. 14 mm.

Ezanas was a pagan king converted to Christianity about 330 A.D. Most of his coins are of the pagan period.

*enze Affni*, 3rd ser., Vol. 3; whole Vol. 39 (1926), pp. 5-110, and "Numismatica e Storia d'Etiopia. Note Bibliografiche e Nuove Osservazioni di Numismatica Axumita," in *Rivista Italiana di Numismatica*, 3rd ser., Vol. 5-6, whole Vol. 41-42 (1928-29), pp. 5-102, in which will be found a bibliography listing fifty-two titles. To these may be added: Conti Rossini, "Monete Axumite," in *Africa Italiana*, Vol. I, No. 3 (Dec. 1927), pp. 179-212, and Howland Wood, *The Coinage of Ethiopia* (New York, 1937).

CHRISTIAN PERIOD

ANONYMOUS COINS

*EZANAS and Successors, Middle of Fourth to Fifth Century*

4. BACI ΛΕΥC (King) separated by small bust of king to right, all within a circle.

*Rev.* TOYTOAPECHTHXΩPA (This pleases the country), a circular legend between lined circles; a small cross in central field.

Æ. 1.38 gr. 13.5 mm. *Cf.* Anzani 44 ff.

5. Similar to No. 4.

Æ. 1.02 gr. 13.5 mm.

6. Similar to No. 4, except for different cross on reverse.

Æ. 0.70 gr. 13.5 mm.

7. BAX ABA (?) within a double circle and separated by bust of king to right.

*Rev.* Circular legend as on reverse of No. 4 around a beaded circle containing a voided cross. The voided area is gold plated or inlaid.

Æ. 0.50 gr. 13 mm. *Cf.* Anzani 70a.

*OUAZEBAS, End of Fourth or beginning of Fifth Century*

8. +OYAZHBAC BACIΛΕΥC (Ouazebas King), circular legend within a circle and around small bust of king to right between two spears of grain.

*Rev.* Legend as on reverse of No. 4 between two circles, and with smaller bust of king to right in central field.

Æ. 1.16 gr. 15 mm. *Cf.* Anzani 71.

9. Similar to No. 8 except that there is a larger bust on obverse, and that area around small bust on reverse is gold, either plated or inlaid.

Æ. 1.88 gr. 17 mm. *Cf.* Anzani 79a.

*KALEB and Successors, Anonymous Coins of the Sixth Century*

10. CAXXA CA (?) within a circle around crowned bust of king to right and separated by the cross at top of a long scepter.

*Rev.* Legend as on reverse of No. 4 within a circle. In the field, a cross within and attached to a circle, with central pit of cross filled with gold, either plated or inlaid.

Æ. 0.84 gr. 13.5 mm. *Cf.* Anzani 153 ff.

11. Similar to No. 10 except that obverse bust is larger.  
Æ. 0.56 gr. 15 mm.

*IOEL, Seventh to Eighth Centuries*  
(Legends change from Greek to Ethiopic)

12. **ዮን** (King) around crowned bust of king to right with small cross in field in front of crown.  
*Rev.* **አሃኦል** (Iy'oel). Large cross with letters of inscription between its arms.  
Æ. 0.80 gr. 14 mm. *Cf.* Anzani 200.
13. **ዮሐንስ** (King Ioel) around small crowned bust of king, facing.  
*Rev.* **ክርስቲስ** (Christ with us) within a beaded circle around a small cross of Calvary.  
Æ. 0.72 gr. 12 mm. *Cf.* Anzani 208 ff.
14. Similar to No. 13 except that bust and cross are larger.  
Æ. 0.80 gr. 14 mm.

*ARMAH, Seventh to Ninth Centuries*

15. **አርማህ** (King Armah) within a beaded circle around and separated by king seated on a throne, facing right, holding a long sceptre surmounted with a cross.  
*Rev.* **ጌዳላላክ** (Joy to the people) around a wreath formed by two spears of grain tied with a knot which separates leg-end. Within wreath there is a voided cross; the central pit of the cross is filled with gold, either plated or inlaid.  
Æ. 1.62 gr. 21 mm. *Cf.* Anzani 260.
16. Similar to No. 15.  
Æ. 1.17 gr. 20.5 mm.
17. **አርማህ** (King Armah) around small crowned bust of king to right, holding sceptre surmounted by a cross.  
*Rev.* **ወላወላ** (Grace and peace) around a representation of the royal throne.  
Æ. 0.57 gr. 13.5 mm. *Cf.* Anzani Suppl., Pl. o, 49. Both obverse and reverse show traces of gold plating.

*GERSEM I*, Eighth or Ninth Centuries

18. **ገረ ሰላሳ** (Gersem) within a beaded circle and separated by crowned head of king to right; a crescent and a dot in field behind crown.

*Rev.* **ሳገ ወ** (King) within a circle and separated by helmeted head of king to right, holding a scepter with cross; crescent and dot in field behind crown.

Æ. 0.74 gr. 14.5 mm. *Cf.* Anzani Suppl. Pl. o, 43; Anzani's piece differs in that it is bronze and lacks the crescent and dot on both obverse and reverse.

*HATAZ II*, Ninth to Tenth Centuries

19. **ሳገ ወ ሰላሳ** (King Hataz) separated by large crowned bust of king, facing.

*Rev.* **ጸሐ ሰላሳ ሰላሳ** (Grace to the people) around and divided by the crossed prolongations of the corners of a lozenge containing a small plain cross.

Æ. 0.92 gr. 17 mm. *Cf.* Anzani 282.

20. **ሳ ሰላሳ** (Hataz) within a circle and separated by a crowned bust of king to right.

*Rev.* **ሳገ ወ** (King) within a circle and separated by helmeted bust of king to right.

Æ. 0.91 gr. 13 mm. Type not in Anzani.

WILLIAM L. CLARK





# THE DISTRIBUTION OF COIN TYPES IN ANCIENT CHINA

(SEE PLATES XXIII–XXV)

IT has been generally, though mistakenly, believed that the *tao* (knife) and the *pu* (spade) coins circulated side by side throughout ancient China. This impression seems to have resulted from the ambiguous monetary term *tao-pu* (knife and spade) which frequently appears in the literature of the latter part of the Chou period (403–221 B.C.). Of this literature the philosophical work of Hsün Ch'ing (340–245 B.C.?), known as the *Hsün-tzŭ*, is the most generally known.<sup>1</sup>

This misconception has been so widespread that even historians have failed to pay due attention to passages in other literary works where reference is made to either *pu* alone or to the *tao*.

One of the earliest of such literary works is the ode of "Mang," a seventh century B.C. poem of the state of Wei, in which a girl says of her suitor,

A simple-looking lad you were,  
Carrying [spades]<sup>2</sup> to exchange for silk.  
But you came not so to purchase silk;  
You came to make proposals to me.

In the *Mo-tzŭ* (Works of Mo Ti), merchants are said to have

<sup>1</sup> A greater part of this work has been translated in H. H. Dubs, *Works of Hsüntze*, London, 1928.

<sup>2</sup> Both Arthur Waley (*Book of Songs*, 1937, 96) and James Legge (*Chinese Classics*, 1871, IV, 97), from which the above is quoted, incorrectly translate *pu* as "cloth," a mistake shared by many Chinese scholars.

used *pu* in their trade.<sup>3</sup> Mencius, in the *Mêng-Tzŭ*,<sup>4</sup> speaks of taxation in *pu* but never refers to *tao*. A woman in the state of Wei is said, in the *Han-fei-tzŭ*, to have prayed that Heaven grant her "one hundred bundles of *pu*."<sup>5</sup> In the same work the wages of farm laborers are said to have been paid in spade coins (*ch'ien-pu*).<sup>6</sup> While the term *tao-pu* (knife and spade) does appear in the *Kuan-tzŭ*, *tao* (knife) alone seems to occur as frequently.<sup>7</sup> All these statements acquire significance when we realize that they are made by philosophers and authors, or about persons, of varying geographical origin. Mo Ti was a native resident of Lu, Mencius of Tsou, and Han Fei of Han. The *Kuan-tzŭ* preserves some of the traditions of Ch'i. One may assume that these areas and Wei,<sup>8</sup> the state of the praying woman and of the ode of "Mang," used either the *pu* or the *tao* and not both of them together. The statement of Ssŭ-ma Ch'ien (145–86 B.C.) that before the "unification of the monetary system" in 221 B.C. the coinage consisted of four forms, "the *ch'ien* (a type of spade), or the *pu*, or the *tao*, or the tortoise and cowrie shells,"<sup>9</sup> contributes

<sup>3</sup> *Mo-tzŭ*, *Ssŭ-pu pei-yao* ed., XII, 3<sup>a</sup>. The reference is in the chapter entitled "kuei-i" (Esteem for Righteousness). This chapter, which contains discussion of various subjects by Mo Ti (480–390 B.C.), was probably written by his disciples, as Dr. Hu Shih and Liang Ch'i-ch'ao have pointed out. Yi-pao Mei mistakenly translated "*pu*" (spade coin) as "cloth" (*The Ethical and Political Works of Motze*, London, 1929, 225).

<sup>4</sup> *Mêng-tzŭ*, *Ssŭ-pu pei-yao* ed., III, 14<sup>b</sup>. James Legge translated "*pu*" as "cloth" (*Chinese Classics*, Hong Kong, 1861, II, 76). "*Pu*" correctly translated means "spade coin."

<sup>5</sup> *Han-fei-tzŭ*, 1875, X, 4<sup>b</sup>.      <sup>6</sup> *Op. cit.*, XI, 9<sup>a</sup>.

<sup>7</sup> For some of the references on the knife coins see *Kuan-tzŭ*, *Ssŭ-pu pei-yao* ed. XXII, 4<sup>a</sup>–4<sup>b</sup>; XXIII, 1<sup>a</sup>; XXIII, 7<sup>b</sup>.

<sup>8</sup> This state of Wei 衛 is not to be confused with the state of Wei 魏 shown on the accompanying map (p. 139). During the Chan-kuo period, on which the map is based, the Wei referred to in the text, once a state of fairly large territory, had become a very small state with a limited area around P'u-yang (modern city in southern Hopeh), which was its capital. At this time much of its former territory had been incorporated into the territories of Chao and Wei as shown on the map.

<sup>9</sup> *Shih-chi*, *Po-na-pên* ed., XXX, 21<sup>a</sup>. *Ch'ien* 錢 and *pu* 布 were both agricultural tools for weeding, from which the spade coins derived their shape. *Ch'ien* as an agricultural tool is found in the *Shih Ching* (*Mao Shih*, *Ssŭ-pu pei-yao* ed., XIX, 6<sup>b</sup>). Chêng Hsŭan

further to the theory that ancient China's coinage was one of regional diversity rather than of multiformity.

Verification of the regional character of coin types in the Chou period is found in the inscriptions on the coins themselves. Except for the prototype spade coins and a few late spades every spade coin bears an inscription. Those of earlier date bear a numeral or character which presumably indicates a series.<sup>10</sup> Later, say in the eighth century B.C., this simple mark is replaced by a regular legend consisting of the name of the mint town, frequently accompanied by the denomination of the coin. On both early and late knife coins the mint name is also inscribed together with a specific monetary designation. Only the so-called *chien-shou-tao* (pointed-tip knives) are an exception. By identification of the mints inscribed on the coins and the location of them geographically, the areas of their circulation can be established.

This, however, is not an easy and simple task. The inscriptions on early Chinese coins are in "ancient script," which is not yet completely understood in all its details. There are, therefore, many coin inscriptions which are either uncertain in decipherment or cannot be deciphered at all. An added complication is the fact that the inscriptions are usually contracted. In addition

(127-200) comments that it is the *t'ao* 鋤 (*ibid.*). During the late Chou period, *t'ao* was an agricultural tool for weeding (see *Tuan-shih shuo-wên-chiai-tzû chu*, 1908, XIV, Part I, 3<sup>a</sup>; *Shuo-wên chiai-tzû i-chêng*, 1870, XLV, 14<sup>a</sup>-14<sup>b</sup>). *Pu* is probably a borrowed word for *po* 鍤, which is mentioned as an agricultural tool for weeding in the *Shih Ching* (*Mao Shih*, XIX, 15<sup>a</sup>). In ancient times 布 and 鍤 were pronounced similarly, therefore they could be used interchangeably. Of the hollow-handle spade coins preserved today there are two distinct types. One has a raised shoulder and pointed foot, and the other has a flat shoulder and a mildly curved foot. Both are spades for weeding, and they reflect the different shapes of the *ch'ien* and the *po*, but which was called *po* and which *ch'ien* is not certain.

<sup>10</sup> These characters are mostly from the series called the "Heavenly Stems," which are ten in number, and the "Earthly Branches," of which there are twelve. Besides these twenty-two characters the Chou people seem to have used other characters as serial marks.

to epigraphical difficulties there are problems in identifying mint names, once deciphered, with towns recorded in historical literature. In ancient China, there were many towns with identical names located in different states, and sometimes even two towns in the same state shared the same name. Moreover, some mint names which can be deciphered are not to be found in historical records.

In cases where the mint town as shown on the coins may be located in two, three, or four different states, it is necessary to find the most plausible identification by comparison of the coins with those of possible neighboring towns. If the designs on the coins of the latter show similarity to those of the town in question, it may be assumed that the mint is located in the same district. If the name of the mint cannot be found in historical sources, we may, in some instances, resort to association with the location of known mountains, hills, rivers, or other landmarks, from which many settlements and towns in ancient China derived their names.<sup>11</sup> All coins for which the mint name could not be satisfactorily deciphered or for which the mint location is not certain have been omitted from the present study.

#### DISTRIBUTION OF SPADE COINS

In 1942 Chêng Chia-hsiang published a prefatory article to a study of inscriptions on ancient Chinese coins, in which he says that he has collected 244 different characters appearing on spade coins alone.<sup>12</sup> Judging from the average inscription on spade coins, at least eighty per cent of these, or about 195, must

<sup>11</sup> For instance, Chi-yin 濟陰 appears in the coin legend as a mint town but cannot be found in any of the ancient literary sources. However, judging from the meaning of the name, we know it must have been located south (*yin*) of the Chi River. In Chou times the Chi River was in the western part of the present Shantung Province.

<sup>12</sup> Chêng Chia-hsiang, "Ku huo wên-tzû hui-pien tzû-hsü" (Preface to a compilation of the characters on the old coins). *Ch'üan-pi* 泉幣 (*Chinese Numismatics Bi-monthly*), No. 11, p. 42.

be names of mint towns. Many of the names of the mint towns, however, consist of two characters, and these mint names account for two thirds of the total. Thus the actual number of the mint names would be no more than 140. We have ourselves collected 147 names of mint towns on spade coins in the collection at The American Numismatic Society, supplemented in some cases by those in coin catalogues published before 1939. Because of the difficulties mentioned above, not all of these names have been satisfactorily deciphered and located. The following table contains seventy-nine mint towns whose names and locations have been established through careful study. In some cases the state name noted for a mint town in the table is not precisely that of the town when the particular coin was issued. To simplify reference to the map accompanying this article (p. 139) the state names are all of the late Chou or the Chan-kuo period (403-221 B.C.).

<i>Mint</i>	<i>State to which it belonged in 403-221 B.C.</i>	<i>Modern location</i>
An-i 安邑	Wei	S. W. Shansi
An-yang 安陽	Wei	N. Honan
An-yin 安陰	Chao	S. Hopeh
Ch'ang-tzû 長子	Chao	S. E. Shansi
Ch'êng 成	Lu	W. Shantung
Chai-yang 宅陽	Han	N. Honan
Ch'i 祁	Chao	N. Shansi
Chih 智	Wei	S. W. Shansi
Chih 歲	Chao?	S. Shansi
Chin-yang 晉陽	Chao	C. Shansi
Ching 京	Han	N. Honan
Cho 涿	Yen	N. Hopeh
Chou 周	Chou	C. Shensi & C. N. Honan
Chu 邾	Ch'u	S. Shantung
Ch'iu 垂	Sung	E. Honan
Chung-tu 中都	Chao	C. Shansi
Chung-yang 中陽	Chao	S. W. Shansi

<i>Mint</i>	<i>State to which it belonged in 403-221 B.C.</i>	<i>Modern location</i>
Fêng 鄆	Ch'in	E. Shensi
Han-tan 邯鄲	Chao	S. Hopeh
Hao 鄆	Chao	S. Hopeh
Hou 侯	Han or Wei	N. Honan
Huo 霍	Chao	S. Shansi
Hsi-tu 西都	Chao	C. Shansi
Hsia-pi-yang 下邳陽	Han	C. Honan
Hsiang 向	Han?	C. Honan
Hsiang-p'ing 襄平	Yen	S. Liao-ning (in S. Manchuria)
Hsiang-yüan 襄垣	Wei	S. E. Shansi
Hsin 邾	Han, Chao, Wei or Sung	(In spade coin area)
Hsin-ch'êng 新城	(seven)	(In spade coin area)
Jao-yin 壞陰	Han?	S. E. Shansi
Jên-shih 壬氏	Lu	S. W. Shantung
Kao-tu 高都	Han	N. Honan
Kuai 號		(In spade coin area)
Kung 共	Wei	N. Honan
Kuo 戈	Sung	E. Honan
Lai 來	Sung	E. Honan
Li-shih 離石	Chao	W. Shansi
Liang 梁	Wei	N. Honan
Lin 蘭	Chao	W. Shansi
Liu 留	Sung	N. Kiangsu
Lu 露	Han	S. E. Shansi
Lu-shih 盧氏	Han	W. Honan
Lü 呂	Chao	S. Shansi
Mi 費	Lu	S. Shantung
Nieh-yin 涅陰	Wei	S. E. Shansi
Pei-ch'u 北屈	Wei	S. W. Shansi
Pei-tzû 北茲	Chao	C. Shansi
Pi-yin 比陰	Han	C. Honan
P'i-shih 皮氏	Wei	S. W. Shansi
P'ing-chou 平州(周)	Wei	C. Shansi
P'ing-yang 平陽	Han, Chao	S. W. Shansi
P'ing-yin 平陰	Han	N. Honan
Po 亳	Sung	E. Honan

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<i>Mint</i>	<i>State to which it belonged in 403-221 B.C.</i>	<i>Modern location</i>
P'u-pan 蒲坂	Wei	S. W. Shansi
P'u-tzŭ 蒲子	Wei	W. Shansi
San-ch'uan 三川	Han	W. Honan
Shan-yang 山陽	Wei	N. Honan
Shang 尚	Chao	C. Shansi
Shang-ch'iu 商丘	Sung	E. Honan
Shang-pi-yang 上邳陽	Han	C. Honan
Sung 宋	Sung	E. Honan
Ta-yin 大陰	Wei	N. W. Honan
Tu-yang 杜陽	Ch'in	W. Shensi
T'un-liu 屯留	Wei	S. W. Shansi
Tung-chou 東周	Chou	N. Honan
T'ung-t'i 銅鞮	Wei	S. Shansi
Tzŭ-shih 茲氏	Chao	C. Shansi
Wên-yang 汶陽	Lu	C. Shantung
Wu 郛	Chou or Chao	(In spade coin area)
Wu-an 武安	Chao	N. Honan
Wu-p'ing 武平	Chao	N. Honan
Yang 陽	Han	N. W. Honan
Yang-ch'êng 陽成	Han	N. Honan
Yang-jên 陽人	Han	C. Honan
Yin-chin 陰晉	Ch'in	E. Shensi
Yü 于	Han?	N. Honan
Yü 虞	Wei	S. W. Shansi
Yü-yang 漁陽	Yen	N. Hopeh
Yüan 垣	Wei	S. W. Shansi

The above table includes seventy-nine mint towns, a sufficient number to illustrate the distribution of the towns which minted spade coins. In terms of the geography of the Chan-kuo period, these seventy-nine mints were located in the royal domain of Chou and in the states of Wei, Chao, Han, Lu, Sung, Yen and Ch'in. None was located in the state of Ch'i on the Shantung Peninsula<sup>13</sup> or in the present Hupeh Province, the original territory of the state of Ch'u.

<sup>13</sup> Among the small square foot spades there is a group bearing a legend which some

The regional character of the distribution of spade coins is further corroborated by the provenance of the coins. Hollow-handle spade coins (PLATE XXIII, 1) have been discovered in central Shensi, Honan (especially in the area around Lo-yang, Ling-pao and K'ai-fêng), and southeastern Shansi.<sup>14</sup> Old spade coins (called "weight money" by Western numismatists, PLATE XXIII, 4) were found in Shansi.<sup>15</sup> Late spade coins (the small pointed-foot or square-foot spades, PLATE XXIII, 2-3) have been unearthed in central Shensi, Honan, Shansi and Hopeh.<sup>16</sup> In terms of the geography of the Chan-kuo period as used on the accompanying map and in the table above, these areas are territories of the royal domain of Chou and of the states of Wei, Chao, Han, Ch'in, Yen and Sung, in all of which mint towns of spade coins were located.<sup>17</sup>

numismatists claim to be 貝丘 Pei-ch'iu, which was located in the territory of Ch'i. As the decipherment is uncertain, Pei-ch'iu has not been included in the table.

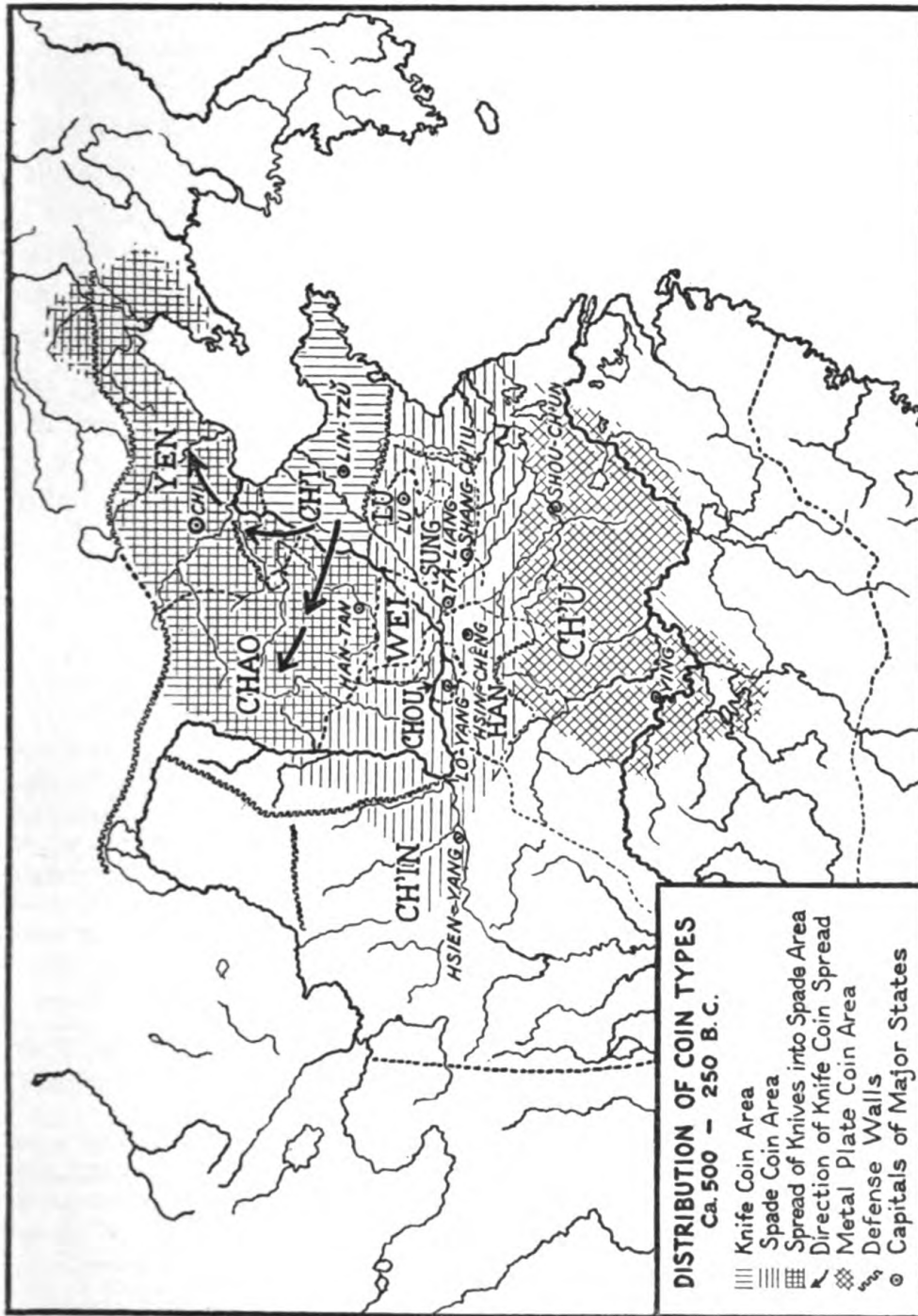
<sup>14</sup> See Li Tso-hsien, *Ku ch'üan hui* (Coole, No. 266), Part I, X, 1<sup>b</sup>; Li Tso-hsien and Pao K'ang, *Hsü ch'üan hui* (Coole, No. 199), Part I, II, 7<sup>b</sup>; Ch'u Shang-ling, *Chi-chin so-chien lu* (Coole, No. 9), "fan-li" (Rules for the compilation) and II, 8<sup>a</sup>-8<sup>b</sup>; Pao K'ang, *Kuan-ku-kê ch'üan-shuo* (Coole, No. 296), 1<sup>a</sup>; Pao K'ang ed., *Hsü ch'üan-shuo* (Coole, No. 202), 4<sup>a</sup>; Fang Jo, *Yüeh-yü ku-huo ts'a-yung* (Coole, No. 290), under the "Han-yang" hollow-handle spade; Lo Chên-yü, *Yung-lu jih-cha* (Coole, No. 392), 1934, photostat ed., p. 10<sup>b</sup>; Chêng Chia-hsiang, "Shang-ku huo-pi t'ui-chiu" (Researches in the ancient coins), *Chinese Numismatics*, No. 9, p. 23.

<sup>15</sup> See Ni Mo, *Ku-chin ch'ien lüch* (Coole, No. 245), II, 11<sup>b</sup>.

<sup>16</sup> Ch'u Shang-ling, *op. cit.*, I, 4<sup>a</sup>, 14<sup>b</sup>, 16, 16<sup>b</sup>, 18<sup>a</sup>; II, 4<sup>b</sup>; Li Tso-hsien, *op. cit.*, Preface III, 12<sup>b</sup>; *Kuan-ku-kê ch'üan-shuo*, 1<sup>b</sup>; *Hsü ch'üan-shuo*, 1<sup>b</sup>; Pao K'ang, *Kuan-ku-kê ts'ung-kao* III (Coole, No. 299), 7<sup>b</sup>; *Chinese Numismatics* No. 5, p. 23.

<sup>17</sup> A nineteenth century collector named Chin Hsi-ch'ang reports that during the reign of Emperor Ch'ien-lung (1736-1795) "several tens to a hundred" of the hollow-handle spades bearing the legend of "Wu" and "Lu-shih" were unearthed in the mountains in Yü-hang in Chekiang Province, *Ch'ing-yün-kuan shou-ts'ang ku-ch'üan shu-chi* (Coole, No. 101, IX, 4<sup>b</sup>-5<sup>b</sup>). Yü-hang is in north Chekiang near the seacoast. During the Ch'un-ch'iu period (770-481 B.C.) it was in the territory of Yüeh. If the report is reliable, it indicates that the people of Yüeh had obtained money from the interior of ancient China. The location of the mint town of Wu is not noted in the table.





## DISTRIBUTION OF KNIFE COINS

The earliest knife coins preserved today are those of Ch'i (PLATE XXIV, 1), Chi-mo (PLATE XXIV, 2) and An-yang. Inscriptions on the Ch'i knives vary, some being inscribed *Ch'i tsao-pang ch'ang fa huo* 齊造邦長法化 (Everlasting legal money of Ch'i at the establishment of the state), *Ch'i fa huo* 齊法化 (Legal money of Ch'i), or *Ch'i chih fa huo* 齊之法化 (Legal money of Ch'i). The knives of Chi-mo are inscribed *Chi-mo chih fa huo* 即墨之法化 or *Chi-mo fa huo* 即墨法化, both meaning "Legal money of *Chi-mo*." *An-yang* coins are inscribed *An-yang chih fa huo* 安陽之法化 (Legal money of An-yang).<sup>18</sup>

Up to the present time these three groups of knife coins have been regarded as currency of the state of Ch'i by all numismatists, Chinese and Japanese as well as Western. An investigation of the history of the state of Ch'i shows that this traditional conception cannot be accepted. Ch'i was established as a state during the reign of King I of Chou in the first half of the ninth century B.C., and the annexation of Chi-mo by Ch'i was well after 685 B.C., when Duke Huan was the ruler of Ch'i.<sup>19</sup> This fact alone proves the traditional belief unfounded. Therefore, the Ch'i and Chi-mo knives must be treated as currencies of different states.

As Professor Fu Ssü-nien has pointed out, the original territory of Ch'i was the area around the lower ancient Chi River, from which the name of Ch'i (*Chi* without the water radical) was derived.<sup>20</sup> The capital of Ch'i from the date of its final establish-

<sup>18</sup> The decipherment of the character *fa* 法 has produced much controversial discussion. We follow this decipherment because it seems the most plausible from both the epigraphical point of view and the point of view of the history of the monetary system of Ch'i.

<sup>19</sup> We will discuss the date of the establishment of Ch'i as a state on another occasion.

<sup>20</sup> Fu Ssü-nien, "Ta-tung and Hsiao-tung shuo" (On the Ta-tung and the Hsiao-tung), *Bulletin of the National Research Institute of History and Philology*, Academia Sinica, II (1930), 104.

ment in the ninth century B.C. on was Lin-tzŭ, at the location of the present city with the same name in northeastern Shantung.

Ancient Chi-mo was located in the valley of the Nan-Chiao River above the Chiao-chou Bay on which the port of Tsingtao is situated. It was far from the original territory of the Ch'i state.

After much controversial discussion, the "An-yang" which cast knife coins has been identified as the town of this name which belonged to the state of Ch'i in the third century B.C.<sup>21</sup> Its location must have been in the area of present southeastern Shantung.

Ch'i knives have been discovered in "Ch'ang-yang" (*i.e.*, Lai-yang), "Ch'ing-chŭn" (*i.e.*, I-tu), "Têng-chou" (*i.e.*, P'êng-lai), "Lai-Chou" (*i.e.*, Yeh), "Lai-yang" and "Chu-ch'êng."<sup>22</sup> The Chi-mo knives were found in the northeastern and eastern sections of the present Chi-mo,<sup>23</sup> and the An-yang knives around Tsinan, the present capital of Shantung, and east of the county seat of Chi-mo.<sup>24</sup> All these places are located east of longitude 117° E and between latitudes 36° N and 38° N, the very district in which the mints of the coins were located.

Several molds of early knives of Ch'i have been found in recent years. Lo Chên-yŭ records two of bronze and two of clay.<sup>25</sup>

<sup>21</sup> The controversy has been over its identification, because in the early Chinese historical literature three "An-yangs" are found; one was located in southeastern Shantung (*Shih-chi*, *Po-na-pên* ed., VII, 8<sup>a</sup>); another, which belonged to Chao in 296 B.C., was located in the present Tai county in northern Shansi (*op. cit.*, XLIII, 27<sup>b</sup>-28<sup>a</sup>); and a third, which was created by King Chao-hsiang of Ch'in in 259 B.C. (*op. cit.*, V, 34<sup>a</sup>), was located southwest of the modern city of An-yang in northern Honan. However, since the An-yang of Chao had not been annexed by Chao before the middle of the fourth century B.C. from the northern barbarians and the An-yang of Ch'in was very late in origin, the An-yang, the mint of one of the early knives, must be the one located in southeastern Shantung.

<sup>22</sup> Ch'u Shang-ling, *op. cit.*, III, 1<sup>b</sup>; III, 19<sup>b</sup>; last chapter, 6<sup>b</sup>, note; Wang Hsi-ch'i, *Ch'üan-huo hui-k'ao* (Coole, No. 126), Photostat ed., II, 1<sup>b</sup>.

<sup>23</sup> Ch'u Shang-ling, *op. cit.*, last chapter, 6<sup>b</sup>, note.

<sup>24</sup> Ch'u Shang-ling, *op. cit.*, III, 15<sup>a</sup>-15<sup>b</sup>.

<sup>25</sup> *Ku ch'i-wu fan t'u lu* (Coole, No. 232), II, 3<sup>b</sup>-5<sup>b</sup>.

All these have been discovered in the territory of the ancient Ch'i state.<sup>26</sup>

The three groups of early knife coins, on the evidence of their inscriptions and their provenance, are thus found to have been currencies of the region of the present-day Shantung Peninsula. It is significant that no types of coins other than knives have been found in this area.

#### EXPANSION OF THE KNIFE COINAGE

At approximately the end of the Ch'un-ch'iu period (481 B.C.) knife coinage began to spread beyond the borders of the state of Ch'i<sup>27</sup> to the west and northwest. During the Chan-kuo period (403–221 B.C.) a number of cities and towns of Chao (a state bordering on Ch'i on its west and northwest where spade coins had been the regular currency) adopted knife coinage and cast knives of the latest type.

One of the Chao cities adopting knife coinage was Han-tan, which was located immediately southwest of the present county seat of the same name in southern Hopeh Province. It was only a short distance from the capital of the Shang dynasty, known as Yin-hsü, which was in An-yang in northern Honan. From 386 B.C. onward it was the capital of the Chao state and was one of the few important cities described by Ssü-ma Ch'ien. It was an iron producing center and renowned for its singing beauties, who were the subject of the idiomatic expression of many generations, "the singing beauty of Han-tan."

Among the preserved coins of Han-tan there are large hollow-handle spades (PLATE XXIII, 1), large spades of the late period (PLATE XXIII, 2), and small straight knives (PLATE XXV, 1). As the smallest and the latest hollow-handle spades date no

<sup>26</sup> *Jung-lu jih-cha*, 21<sup>b</sup>, and Wang Hsien-t'ang, 王獻唐, *Lin-tzû fêng-ni wên-tzû hsü*, Tsinan, 1936, 5<sup>a</sup>.

<sup>27</sup> By this time Ch'i had conquered Chi-mo, another state which had used knife coins.

later than 400 B.C.,<sup>28</sup> and as an early origin is indicated for the large hollow-handle spades, it is evident that Han-tan had been issuing spade coins as its currency at an early date, say before the seventh century B.C. Its late type of spade coins were issues of the fourth century. Its small straight knife coins, which belong to the latest type of knife coinage, cannot be dated earlier than the fourth century.

The reason for the adoption of the knife coinage by cities of Chao, where the previous currency had been the spade, cannot be stated with certainty. It is likely, however, that it was caused by the expanding economic and military power of Ch'i, where, as we have seen, knives exclusively had circulated. By the beginning of the fifth century B.C. Ch'i had conquered and annexed all the states to its east, including Chi-mo, and had monopolized the fishing industry and the production of salt from the sea. Silk fabrics is another commodity closely associated with the prosperity of Ch'i. As the trade in these commodities developed, "both the people and wealth came to it," to use Ssü-ma Ch'ien's words. "They (the people) came carrying their children on their backs and converged [on Ch'i] like the spokes of a wheel. . . . As a result, Ch'i provided hats, sashes, clothes and shoes for the world. The people between the sea and Mount T'ai (in central Shantung) came hand in hand to pay their homage."<sup>29</sup> The state of Ch'i remained "wealthy and powerful through the reigns of King Wei (357-320 B.C.) and King Hsüan (319-301 B.C.)."<sup>30</sup> At the time of King Hsüan, Lin-tzŭ, the capital of Ch'i, became perhaps the richest and the most prosperous city in the world then known to the Chinese, largely because of its commerce. As Su Ch'in (d. 317 B.C.) described it to the King, "On the roads to

<sup>28</sup> This dating is based on study of the hollow-handle spades of "Eastern Chou" which was created in 425 B.C. A discussion of the dating of hollow-handle spades will appear in a future publication.

<sup>29</sup> *Shih-chi*, CXXIX, 2b.      <sup>30</sup> *Ibid.*

Lin-tzũ the wheels of carriages bump onto each other, and the shoulders of the people rub one another. Connected, the breasts of their coats form a curtain; lifted, their sleeves form a tent; swept, their sweat makes rain.”<sup>31</sup> Thus, in 288 B.C., only Ch’i could compete with the powerful Ch’in, and its ruler assumed the title of *Ti* (Emperor). It is only natural that Ch’i exerted great economic influence on its neighbor and caused Chao to cast knife coins so as to facilitate trade with Ch’i.

Other cities and towns in the state of Chao which, like Hantan, adopted knife coinage were Ming (PLATE XXV, 2), Po-jên, Chin-yang (PLATE XXV, 3) and Lin. The names of all these appear on knife coins. Other places in Chao, for which knives have not yet been found, must have adopted the same monetary policy.

The use of Ming knives covered a wide area. They have been found in central Hopeh, in southern Manchuria, in Jehol and in northern Korea. Ch’u Shang-ling, a famous numismatist of the nineteenth century, reports that “in the ruined walls and abandoned wells of Ho-chien and I-chou they were frequently found, and many times by the thousands.”<sup>32</sup> Both I-chou (today I) and Ho-chien were located in central Hopeh. The excavations of 1920 in I uncovered “very many knives.”<sup>33</sup> Kuan Po-i found more than one hundred in I County of southwestern Liao-ning, southwestern Manchuria.<sup>34</sup> Discoveries in Jehol and on the Liao-tung peninsula are reported by Japanese scholars. Between 1912 and 1936 at least six finds were made in Heian Tao of northern Korea. Some of these were large hoards, of which one, found in bundles of five or six in a wooden box, consisted of more than 4,000 pieces.<sup>35</sup>

<sup>31</sup> *Chan-kuo ch’ê*, *Ssü-pu pei-yao* ed., VIII, 8b.      <sup>32</sup> Ch’u Shang-ling, *ibid.*

<sup>33</sup> Fu Chên-lun, “Yen hsia-tu fa-chüeh pao-kao,” *Kuo-hsüeh chi-k’an* 國學季刊 III (1932), 175–182.

<sup>34</sup> Kuan Po-i, *I-chou Mêng-tao p’u* (Coole No. 224), 1921, preface.

<sup>35</sup> Reference to discoveries of Ming knives in Jehol and southern Manchuria appear in

In the third century B.C., when Ming knives were in circulation, northern Korea was occupied by a people known as the Ch'ao-hsien, who were subjected to the state of Yen. It must have been through Yen that Ming knives were introduced into the territory of this "barbarian" people. According to Ssü-ma Ch'ien, there was trade between Yen and Ch'ao-hsien, from which the former profited greatly.<sup>36</sup>

Thus, we see that, during the Chan-kuo period, the knife coinage spread from Ch'i into Chao, and then into Yen. It became the dominant coinage in what is today known as the whole of northern China, southern Manchuria and northern Korea. We use the word "dominant" advisedly, because the towns of Chao and Yen, both originally in the area of spade coins, did not abandon their old coinage after adopting the knives for trading purposes. Chin-yang and Lin may be cited as examples of mints for which both late spades and late knives exist, dating in the fourth and third centuries B.C. During the Chan-kuo period spades and knives circulated side by side in Chao and Yen.

#### THE "METAL PLATES" OF CH'U

There is one section of ancient China, the state of Ch'u,<sup>37</sup> in which neither the knife nor the spade circulated. Many scholars, among them Lo Chên-yü,<sup>38</sup> held the opinion that Ch'u, being a archaeological reports in volumes of the *Archaeologia Orientalis* (*P'i-tzū-wo*, Vol. 1, and *Hung-shan-hou, Ch'ih-fêng*, vol. 6), compiled by the Toa kokogaku Kwai (Far Eastern Archaeological Society) in Japan. These finds, together with those made in northern Korea, are summarized by Fujita Ryōsaku 藤田亮策 in his "Chōsen hakken no meitō-sen to sono iseki" (*Shigaku Ronsō*, Vol. 7 of *Keijo Teikoku Daigaku Bungaku-kwai Ronsan*, 1938, 1-88).

<sup>36</sup> *Shih-chi*, CXXIX, 9b.

<sup>37</sup> The state of Ch'u during the Ch'un-ch'iu period covered roughly the territory which is today Hupeh Province. During the Chan-kuo period it expanded greatly, covering the modern Hupeh and the greater part of Anhui, southern Honan, northern Kiangsu and a small part of southwestern Shantung.

<sup>38</sup> *Yung-lu jih-cha*, 17a.

state of southern barbarian origin, did not have a coinage of its own.

During the Sung dynasty, flat pieces of gold were discovered which bear stamp-like marks. Their discovery was first reported by Shên Kuo (1030–1094 A.D.), who states that they were found in considerable numbers in the soil of the slopes of the Pa-kung Hills, in the Huai River and in the valley streams of Shou-chou (present Shou County in central An-hui).<sup>38a</sup> The popular explanation first made of these pieces was that they were the so-called “medicine gold” of the Taoist King of Huai-nan (d. 122 B.C.) of the Han period.<sup>39</sup> This traditional explanation prevailed until 1878, when Fang Chün-i after deciphering their inscriptions concluded that they were money of Ch’u.

Chinese numismatists have not found a completely satisfactory name for this money. Popularly, it has been called *yin-tzŭ-chin* 印子金 (stamped gold), *ping-chin* 餅金 (gold plate) and *chin-ping* 金餅 (gold plate).<sup>40</sup> A proper term in English for them might be “metal plate,” which is a satisfactory translation of the Chinese expressions *chin-ping* and *ping-chin*, as the character *chin* means “metal in general” as well as “gold.” The rendering of *chin* as “metal” has another advantage: it does not

<sup>38a</sup> Shên Kuo 沈括, *Mêng-hsi pi-t’an*, *Ssü-pu ts’ung-k’an* ed., supplementary series, XXI, 4a–4b.

<sup>39</sup> Shên Kuo, *ibid.*

<sup>40</sup> See Shên Kuo, *ibid.*, and Lo Chên-yü, *Chin ni shih hsieh*, 1917, at end of book. Fang Chün-i identifies the money with *ping-chin* 餅金 or *chin-pan* 金版 in *Erh-ya* and *chin-pan* 金版 in *Chou Li*, which is said to be presented to the God on High when the *lü* sacrifice was offered (*Chui-i-chai i-ch’i k’uan-shih k’ao-shih*, photostat ed., 1935, XXIX, 29a). We hesitate to accept his identification, as it lacks positive evidence. Furthermore, metal plates did not circulate in the royal domain of Chou. Huang Chün 黃濬 follows Fang Chün-i (*Hêng-chai chin-shih-shih hsiao-lu*, 1935, 15a–17b). Shang Ch’êng-tso 商承祚 calls it *lieh* 𠄎 (*Ch’ang-sha ku-wu wen-chien chi*, 1939, I, 53a–54a), and Lo Po-chao 羅伯昭 names it *yüan chin* 爰金 (“Ying yüan chin,” *Chinese Numismatics* No. 17, pp. 19–20).



exclude the possibility that the Ch'u people might have used currency in metals other than gold.<sup>41</sup>

Metal plates vary in size. The smallest bears one stamp-like mark which contains the name of its mint and its monetary designation. One such piece may be regarded as a unit. Larger pieces bear two or more identical stamps and are thus to be considered as multiples. There are known so far pieces of two, six, fourteen and sixteen units.<sup>42</sup> Shên Kuo reports one gold piece of "more than twenty stamps."<sup>43</sup> Lo Po-chao<sup>44</sup> may be correct in his opinion that the larger pieces, in actual use, were broken into different sized denominations as desired. The fact that no two single unit pieces (ones bearing a single "stamp") are of the same weight<sup>45</sup> need not argue against this, as it would be well nigh impossible to break from a large piece small ones of uniform weight or size.

The "stamps" on metal plates are of three varieties: *Ying Yüan* 郢爰 (Yüan of Ying), *Ch'ên Yüan* 陳爰 (Yüan of Ch'ên) and, as some numismatists claim, *Shou-Ch'un* 壽春. Yüan was a unit of weight in ancient China which here must represent the monetary unit of the metal plates. Ying, located north of the county seat of modern Chiang-ling in southern Hupeh

<sup>41</sup> The gold pieces are reported by Shên Kuo (XXI, 4a-4b) and Fang Chün-i (XXIX, 28a-32b). Copper and lead pieces are reported by Huang Chün (II, 15a-15b and 17a-17b). It is possible that Ch'u had a multi-metallic currency of gold, copper and lead, but Huang Chün does not furnish any proof which can substantiate the authenticity of his copper and lead specimens. "Clay plates" were found recently in a number of old tombs discovered in Ch'ang-sha in Hunan Province. Shang Ch'êng-tso (*op. cit.*, I, 53a-54a) dates the tombs in the time of King Huai of Ch'u (328-299 B.C.). These "clay plates" were of the *Ying Yüan*. One bears sixteen stamps and measures 65 mm. in length, 64 mm. in breadth and 5 mm. in thickness. Some have been covered with "yellow earth" to make them resemble gold. Shang Ch'êng-tso regards the "clay plates" as burial money of the people of Ch'u.

<sup>42</sup> The "two unit" piece is reported by Lo Chên-yü (I, 1a), the six unit and fourteen unit pieces by Fang chün-i (XXIX, 32a).

<sup>43</sup> Shên Kuo, *ibid.*      <sup>44</sup> Lo Po-chao, *ibid.*

<sup>45</sup> According to Fang Chün-i, *op. cit.*, XXIX, 28b.

on the Yangtze River, was a capital of the state of Ch'u. Ch'ên, the modern county seat of Huai-yang in eastern Honan, was the capital of Ch'u during the reign of King Ch'iung-hsiang (298–263 B.C.). Shou-ch'un, a city today in Shou County in central Anhui, was the capital of Ch'u from 242 B.C. until 223 B.C., when Ch'u was conquered by Ch'in. The presence in the "stamps" of names of capitals of Ch'u indicates that metal plates were the official currency of the state. Furthermore, the majority of the finds have been made in the area around Shou-ch'un, the state's last capital.

According to the literary sources of the Chou period, gold was used as a medium of exchange in all of ancient China, but the metal plates of Ch'u are the only specimens in the form of a currency that have come down to us. If other regions used gold at all, it must have been in bulk form as bullion. It is a natural circumstance to find gold used as currency by Ch'u, as from remote antiquity the area south of the Chiang (Yangtze) River was known as a source of gold supply. In the *Shih ching*<sup>46</sup> the metal which the Huai barbarians offered to Lu as tribute is called *nan-chin* (gold from the south). In the *Yü-kung*, the *Kuan-tzû* and the *Shih-chi*<sup>47</sup> it is called *huang chin* (yellow metal). Inscriptions of four Chou bronzes record the capture of *chin* (metal) in the military campaigns against the "southern Huai barbarians," the K'uai and the Ching (*i.e.*, Ch'u).<sup>48</sup> It is not impossible that these "metals" were gold.

#### THE MONETARY UNITS

A further evidence of the local character of the coinages of the Chou period is the fact that the three coin types (knife, spade

<sup>46</sup> XX, 4b.

<sup>47</sup> *Shang-shu*, *Ssü-pu pei-yao* ed., III, 3a; *Kuan-tzû*, XXIII, 2b and 8a; *Shih-chi*, CXXIX, 1b.

<sup>48</sup> Kuo Mo-jo, *Liang-chou chin-wên-tz'ü ta-hsi k'ao-shih*, Tokyo, 1935, pp. 28, 54, 146; Wu Shih-fên, *Chün-ku-lu chin-wên*, 1895, II, part 3, 84a.

and metal plate) have as many different monetary designations. That of the spade is *chin* 鉞.<sup>49</sup> The hollow-handle spades of Mi, a town in the state of Lu, all bear the character *chin* in their legends in such combinations as "Mi Chin" or "Chin of Mi." *Chin* appears also in the legends of practically all the old spades (the so-called "weight money"). By the time these last were issued the monetary system had developed to the stage where more than one denomination was needed, for the old spades have denominations of two (*erh*) *chin*, one (*i*) *chin*, and half (*pan*) *chin*. Old spades of the two *chin* denomination from An-i, Liang and Chin-yang weighed by the author are approximately twice as heavy as those of one *chin*. Likewise, specimens of one *chin* proved to weigh about twice as much as those of a half *chin*.<sup>50</sup>

There are only two sizes of the late spades. Among those preserved none of the larger sized pieces, such as those of Hantan, Chin-yang, Ta-yin, Tzŭ-shih, Lin, etc., have the character *chin* in their inscriptions. Nor do the small sized spades of Chin-yang, Ta-yin, Tzŭ-shih and Lin have the character for *chin*. They do have the character *pan* (half), obviously indicating them as halves of a monetary unit, which must have been the *chin*. The unit inscribed on the preceding spades was *chin* and, as will be shown at a later time, the round coins which developed in the area where spades circulated also were marked with the character *chin*.<sup>51</sup>

<sup>49</sup> The character on spade coins which we read *chin* has been deciphered as *chin-huo* 金化 by some Chinese numismatists. This reading is epigraphically untenable. Most present-day numismatists read it as *chin*.

<sup>50</sup> The average weight of twenty old An-i spade coins of "two unit" denomination in the collections of The American Numismatic Society is 25.20 grams and that of seventeen "one unit" pieces, 13.39 grams. The weight of one "half unit" specimen is 6.57 grams.

<sup>51</sup> It must be noted, however, that among the many thousands of spade coins preserved there are fourteen of the round-shouldered and round-footed shape which bear the monetary designation *liang* 兩, a unit of weight still in use today. They are issues of twelve mints, only three of the names of which can be deciphered even tentatively. They were

As in the case of the spades, knife coins and metal plates also contain monetary designations in their inscriptions. For the knives it is the *huo* 化, which character appears on most specimens along with their mint names. It is found on early knives of Chi, Chi-mo and An-yang and also on the very late knives of Chin-yang, Lin and Po-jên. Likewise, the round coins which developed in the knife area carry the character.<sup>52</sup>

*Yüan* 爰 is the monetary unit of the metal plates, the currency of the state of Ch'u. It was an old unit of weight which can be traced as far back as the Shang dynasty.<sup>53</sup> It continued through the early part of the Chou dynasty.<sup>54</sup> In the legend of a group of five *chin* spades of Liang, capital of the state of Wei, it is stated that each of them "equals twelve yüan."

YÜ-CH'ÜAN WANG

probably currency of the state of Ch'in toward the end of the period of spades, as *liang* is the unit appearing on Ch'in round coins issued after China was unified in 221 B.C. The fourteen pieces are illustrated in *Toa senshi* (Coole No. J-162), IV, 71a-74a.

<sup>52</sup> Round coins with *huo* as their monetary unit will be treated in a future article.

<sup>53</sup> The expression "three hundred old *lieh*" 古三百𠄎 appears in the inscription on the Shih-lü tripod which Kuo Mo-jo (*op. cit.*, 26a) regards as of the period of King Ch'êng (traditional date, 1115-1078 B.C.). *Lieh* and *yüan* 爰 are probably different readings of the same word. Kuo Mo-jo interprets "old" as denoting the period of the Shang dynasty which the Chou replaced, traditionally, in 1122 B.C.

<sup>54</sup> See the text of "Lü-hsing" in *Shang-shu*, where *yüan*, 𠄎 is used denoting a monetary unit. The character *yüan* with or without the radical *chin* has the same meaning.

ILLUSTRATIONS ON PLATES XXIII-XXV

PLATE XXIII

1. Hollow-handle spade of Han-tan, from Okutaira, II, 112a.
2. Large sized late spade of Han-tan.
3. Small sized late spade, a half-unit of the above.
4. Old spade of Chin-yang.

PLATE XXIV

1. Early knife coin of Ch'i (reduced in size to about six-sevenths of actual piece).
2. Early knife coin of Chi-mo (reduced in size to about six-sevenths of actual piece).
3. The so-called pointed-tip knife (reduced in size to about six-sevenths of actual piece).

PLATE XXV

1. Small straight knife coin of Han-tan, from Okutaira V, 62b.
2. The Ming knife.
3. The small straight knife of Chin-yang, from Okutaira V, 69a.
4. The Ying-yüan metal plate, from Fang Chün-i, XXIX, 28a.
5. The Ch'ên-yüan metal plate, from Fang Chün-i, XXIX, 32a.



## THE ZERBE COLLECTION OF LESHER REFERENDUM PIECES

(SEE PLATE XXVI)

**T**HIRTY years ago Farran Zerbe published the most complete and authoritative article yet written about the Leshar referendum pieces.<sup>1</sup> In 1947 Mr. Zerbe presented to the Museum his collection of fourteen of these coins. Previous to this gift, the Society had possessed only a single specimen of one of the commoner issues; it now has a representation of every known variety, all in superb condition, as each piece in Mr. Zerbe's collection had been replaced by a superior one whenever possible. In addition to the coins themselves the Museum owns several of the dies from which they were made, an earlier gift of Mr. Zerbe, presented several years ago.

In the national campaigns of 1896 and 1900, Joseph Leshar was an advocate of the free coinage of silver. His idea of a silver coin issue as a private enterprise seems to have stemmed from Colorado's endorsement of free silver coinage at a ratio of sixteen to one. The name "referendum" was given to the coins because Leshar believed the people wanted and would use more silver dollars. On the basis of this belief he referred his coins, shaped so as to avoid confusion with national coins, to the people for acceptance or rejection as a medium of exchange.

Leshar estimated that about three thousand pieces were distributed, but there are few collectors that can boast anything approaching a complete set. The seizure of the first dies by the government authorities, the subsequent withdrawal of the federal prohibition, the relation of the issue to the question of the

<sup>1</sup> "Private Silver Coins Issued in the U. S., The Leshar or Referendum Pieces," in *The American Journal of Numismatics*, Vol. 51, pp. 153-166.

free coinage of silver and other phases of pure economics, to say nothing of the element of local history involved, have been responsible for considerable interest in this series.

Mr. Zerbe's continued interest in the Lesher coins after the publication of his article led him to add two further varieties to the twelve first published, one of which he believes to be unique. This bears the name of J. E. Nelson & Co. impressed, as are all the names added to these pieces, with the exception of A. B. Bumstead. Having been carried as a pocket piece, it is badly worn. The second addition bears the name of the W. F. White Merc. Co. Other names appearing on the Lesher pieces are: J. M. Slusher, Sam Cohen, D. W. Klein & Co., Geo. Mullen, Boyd Park, W. C. Alexander, and Goodspeeds & Co.

SYDNEY P. NOE



## PLATES



GREEK ACQUISITIONS—1947



GREEK ACQUISITIONS—1947



A



12



13



B



C



14



GREEK ACQUISITIONS—1947



1



2



3



4



5



INCUSE COINAGE OF SOUTH ITALY



1



2



3



4



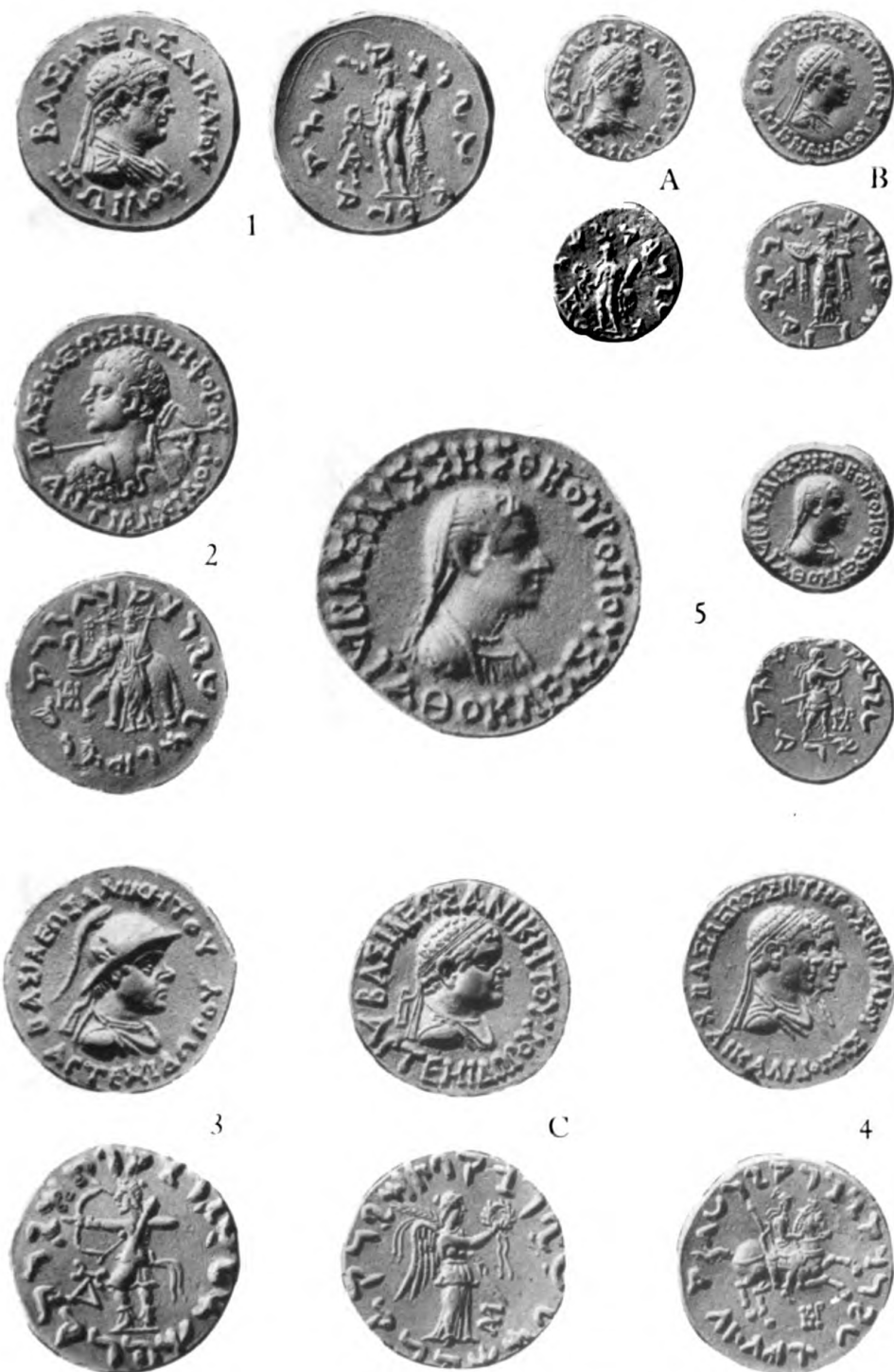
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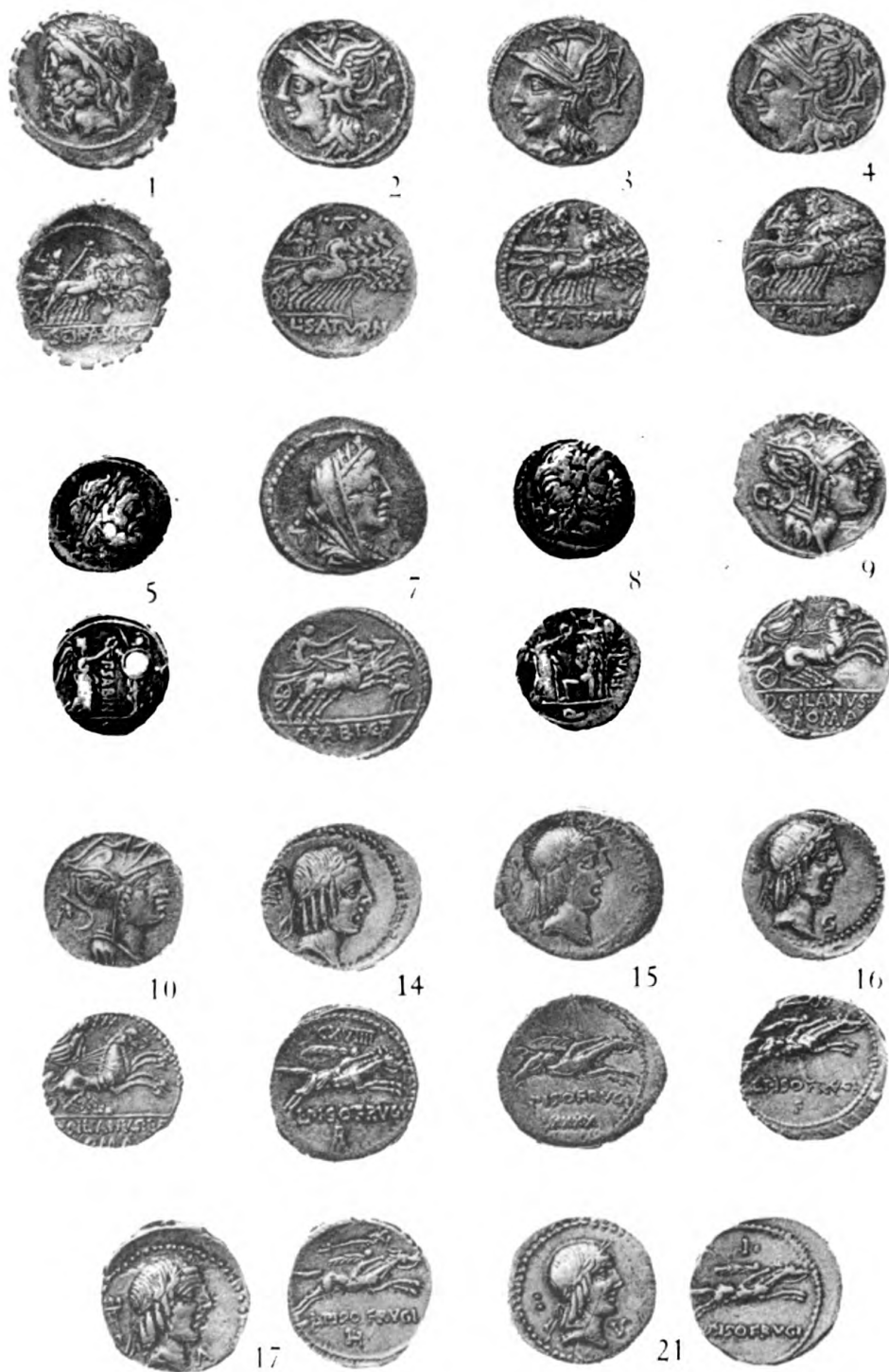
6



ELAEUSA SEBASTE



INDO-BACTRIAN ACQUISITIONS—1947



ROMAN ACQUISITIONS—1947





ROMAN ACQUISITIONS—1947



42



43



44



46



48



49



50



51



ROMAN ACQUISITIONS—1947



ROMAN AND BYZANTINE ACQUISITIONS—1947



BYZANTINE ACQUISITIONS—1947



1



2



4



3



5



EAST FRISIA



EAST FRISIA: 1-11 SAXE-WEIMAR: 12





1



2



3



4



FRANCONIAN CIRCLE COUNTERSTAMP



1



2



3



4



FRANCONIAN CIRCLE COUNTERSTAMP





CUARTILLOS OF CHARLES AND JOHANNA: 1-2  
PILLAR DOLLAR OF PHILIP V: 3



UMAYYAD DINARS



UMAYYAD DINARS: 78-120 'ABBĀSID DINARS: 1-51



‘ABBĀSID DINARS

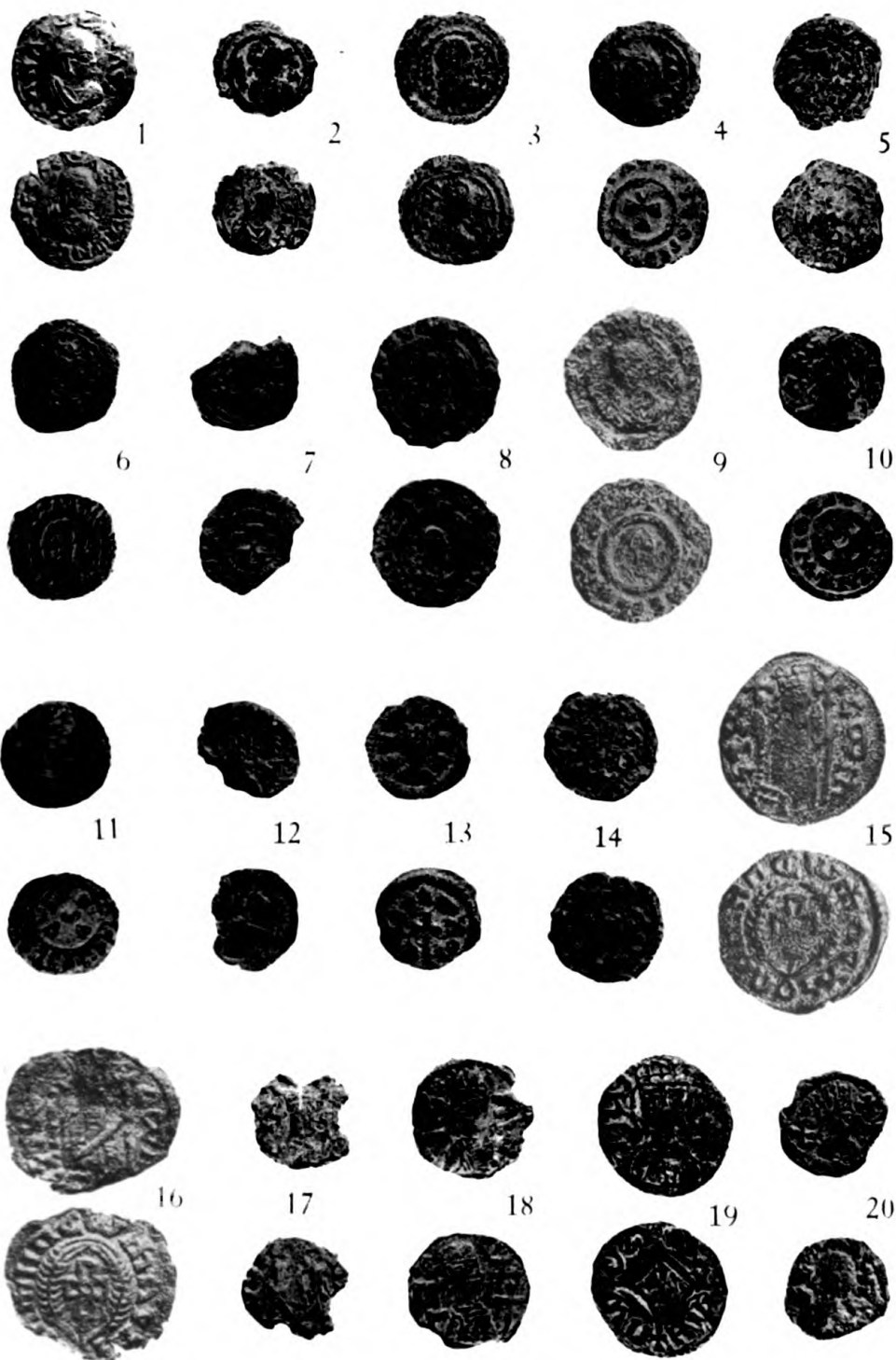


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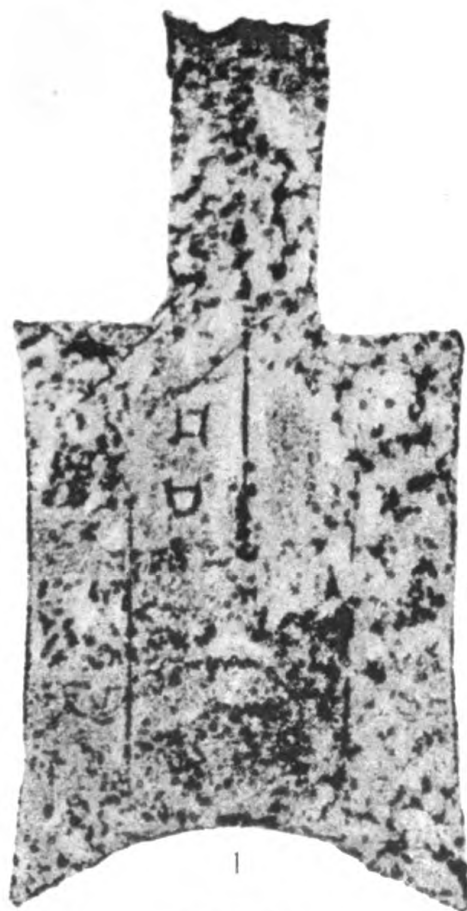




‘ABBĀSID DINARS



COINS FROM AXUM



1



2



3



4

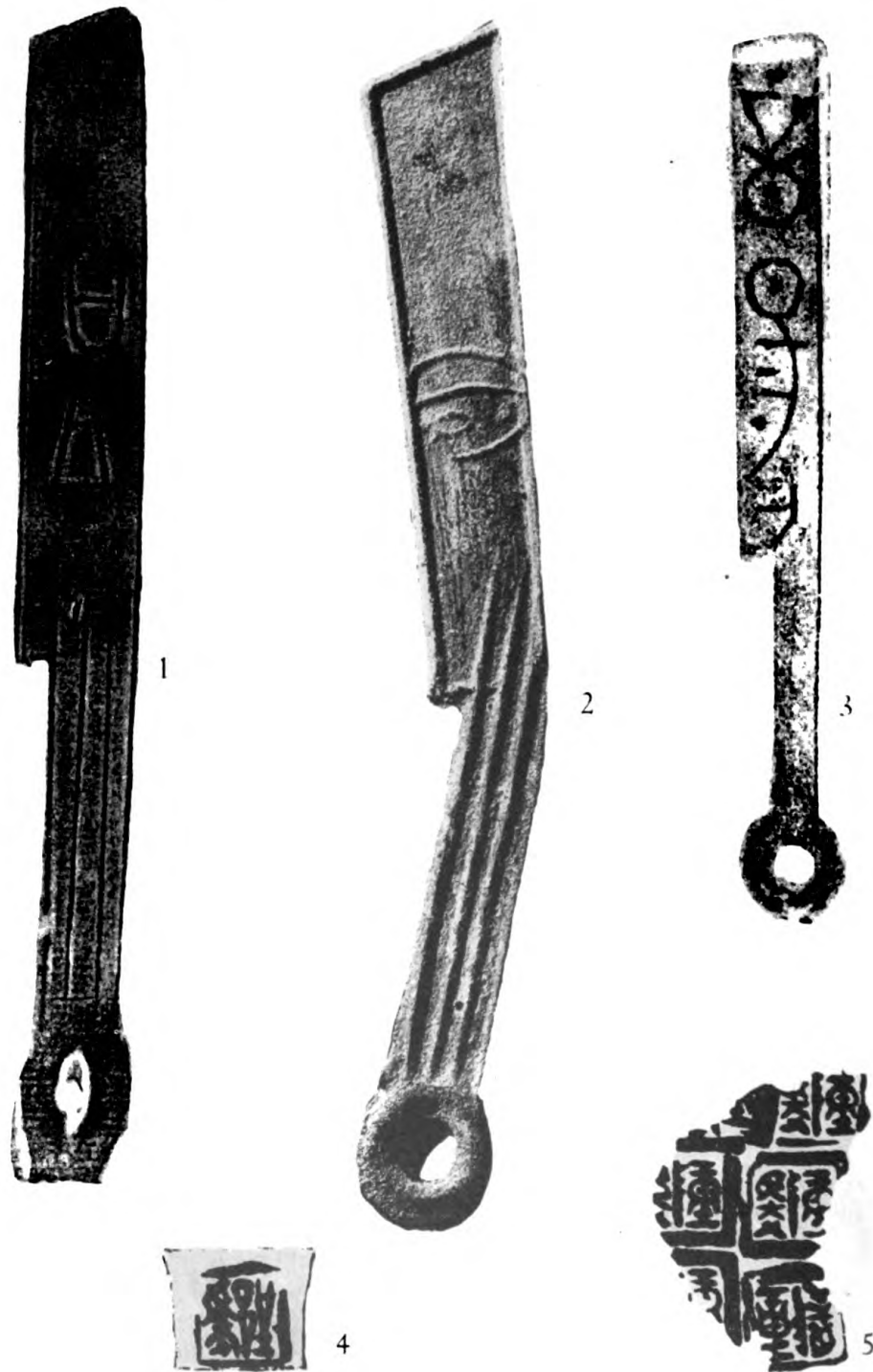
CHINESE SPADE COINS





CHINESE KNIFE COINS

(Reduced to approximately six-sevenths of actual size)



CHINESE KNIFE (1-3) AND METAL PLATE (4-5) COINS



1



2



3



4



5



13-14



LESHER REFERENDUM "DOLLARS"



CJ  
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THE AMERICAN NUMISMATIC SOCIETY

# MUSEUM NOTES

IV



THE AMERICAN NUMISMATIC SOCIETY

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1950

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IV



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## WHAT IS MEANT BY "STYLE" IN COINAGE?\*

Look, in some leisured moment, at the Preface to the Catalogue of the Greek coins of Sicily in the British Museum. There you will see a system of coin-classification based upon the estimate of style as (1) Archaic; (2) Transitional; (3) Finest; (4) Early declining; (5) Late declining; (6) Characteristic of Roman dominion. That system, though its birth had been foreshadowed by various significant portents of the mid-19th century, had finally seen the light of day in 1874, when Barclay Head published his essay "On the Chronological Sequence of the Coins of Syracuse." Its influence was strong and immediate: the British Museum Catalogue of Sicily, which I have mentioned, appeared two years later, in 1876; and from that time onwards it has exerted a powerful effect upon numismatics—and not only Greek numismatics. To a very surprising extent we are still under its domination today.

Shortly before his death Sir Arthur Evans made a laconic and characteristic pencil note in his own copy of that Catalogue. He wrote "Over sixty years out of date in 1939." He himself was then nearly ninety. In that long life he had seen the vigorous renaissance of numismatic studies; he had, in addition, given years of study to cultures and ages which knew no coinage at all. Looking backwards and forwards at the same time—an achievement, Janus-like, only possible for those either of great age or great genius or both—he could

\* This article represents, with some minor revisions, a lecture delivered by Dr. C.H.V. Sutherland at a special meeting of The American Numismatic Society on December 17, 1949.

observe the perspective of study down the years. He had been among the first to feel strongly the attraction of Head's new system of classification by style. At the time of his death, however, he knew that the classification of coins depended on the synthesis of every single branch of cognate study.

We ourselves are perfectly well aware of this. We know that coin-classification, when undertaken without the checks and counterchecks of type-content, literary or historical allusions, and fabric (including the composition of metal, weight, die-axes, etc.), may be hopelessly deceptive; and we have been doing our best, in recent years, to concentrate our sharpening attention upon the purely physical and less subjective and (we hope) less deceptive features of coinage as a basis for chronological classification and arrangement. This, we feel, is the safer method, and one which has already served us well on numberless occasions. It is, after all, something to know that die B was only introduced when die A wore out, or that dies A and B were both used simultaneously with die C. The sum of historical truth has been swelled by the knowledge that imitations of *denarii* of Augustus given to the Year of Four Emperors, A. D. 68-9, rightly belong there because they show the reduced Neronian weight-standard. We cannot be wrong in saying that dies shared in common between, say, Valens and Gratian prove a centralized and simultaneous emission. The certain knowledge that Julius Caesar introduced *orichalcum* into the range of Roman coinage-metals is a recent example of what the laboratory can tell us.

These are technical and scientific advantages of genuine and lasting value; and more of this kind is in store. For example, the future use of the X-ray spectroscope for determining the precise metal-composition—and thus the mining-area—of a given batch of coinage will certainly furnish results of immense importance. In one way or another we can give coins, quite

independently of style, to much more accurately defined areas and periods than was ever possible when Barclay Head began to write. Very often our new methods literally sweep away former theories: for example, the work now being done at Oxford on the dies of Flavian *sestertii* of A. D. 70-71 has shown quite conclusively that the so-called coins of the Tarraco mint were actually struck at Rome; and researches into the minutiae of, let us say, the late medieval and Tudor coinages of England have had results of equal importance. But all this, welcome and admirable as it is, carries with it its own set of dangers in another direction. We ascertain, scientifically, the close date of a coin. We look at the coin, observe it carefully, and say "Such, then, is the style of that period."

"Style of a period," I have said. But what *is* the style of a period? We can talk about general tendencies visible in certain broad fields of human achievement over considerable periods, such as twentieth century glass-and-steel architecture, or the forms prevalent in modern painting, or the hot rhythm of the day. Yet, if we call such phenomena 'the style of a period' we are doing the phrase an injustice. They are not, for the most part, a style in their own right. They are reflections of a style, or of a synthesis of styles; and the style or styles from which they are derived are surely the individual achievements of individual men. A 'period' can have no true style; for a period is impersonal, non-creative. But a man—personal, individual and creative—will one day decide to do a thing as no one has previously done it. Whether he is Picasso or Milton, Benvenuto Cellini or Christopher Wren, Pheidias or Epstein, he will then have brought forth a style. Style, in short, is born of people and not of periods; and, insofar as we may talk of 'the style of a period', we really mean the style of certain pioneers *in* that period. Hence the direction and the success of the research carried on by such gifted scholars as J. D. Beazley

and Charles Seltman. To find, and by patient observation to group, to a particular painter a number of vases indissolubly linked by identical peculiarities of conception and treatment, or to recognize the work of a particular master die-engraver in the issues of adjoining mints — this is to carry further the definition of style in a given period, but only through the postulating of certain individual artists with individual ideas.

Style, then, is a personal and individual matter. It involves all kinds of highly subjective considerations. Just how do you see a tree, a house, a man? Primarily in terms of colour, or of two-dimensional form, or with a stereoscopic three-dimensional vision? What views do you hold about the proportion of a coin-design to the field which it is to occupy? Do you prefer to see large portrait-heads, monopolising the field of a coin — as, for example, at the Greek mint of Aenus, or in the coinage of the fourth century Tetrarchy at Rome — or small ones, with a princely measure of space around them, as on so many of the medieval issues of Europe? What views have you got about the quantity — and quality — of lettering? Have you strong opinions about the height of the relief when modelling your heads — especially in relation to the width and thickness of the flan? Are you a symbolist, preferring to let one thing speak for another, or a naturalist? All these things are going to count for much; and no dies of any consequence have ever been made without considering some or others of them, for the mind which knows the right set of answers, coupled with the spirit which feeds on beauty and the hand which rejoices in the skilful interpretation of orders, is in fact producing style. I say, on purpose, “with the skilful hand”: for style is capable of remaining quite unexpressed, still-born within the artist’s mind, unless it is brought into being by the physical manipulations of the artist’s hand.



Thus style is ultimately the particular mark of the particular man. Its focus must always be narrowed down and its true origin defined. To talk compendiously of the style of a period, or of a decade, is to compress and telescope several artists, mixing and diluting their vitally important idiosyncrasies, and leaving only a common denominator. And this common denominator may be the product of a quite surprisingly wide range of positive factors. In the first place, obviously, we must allow for the influence exerted by an acknowledged master upon his associates and successors. A man whose genius in design is matched by godlike skill in its physical expression is bound to transmit certain characteristics of style to those who fall under his artistic domination. Think for a moment of some of the major figures in the history of artistic creation — the verbal forms elaborated by a Cicero, the human forms made famous by a Botticelli — and reflect upon the degree to which they affected the creative quality of their times. To some extent, indeed, the style of a master, if communicated to another man of equal genius, will retain, even if in transmuted form, its splendour and quality — the beauty of a Mozart absorbed by a Beethoven. But if a master of towering genius is followed by lesser men, we shall most likely see the master's style *copied*, and not transmuted: and style, when copied and reproduced, swiftly sinks into mere similarity of treatment, losing its freshness and stimulus by every act of reproduction.

Let us seek further illustrations of a common denominator in the style of a period. What are we to think, for instance, of a system of official models supplied to mints for the express purpose of giving die-engravers an official likeness to work upon? That this system existed for Rome there can be no doubt. We remember the hesitancy of the earliest portrait-types of Vespasian, with Galba-like features, and the first

portrait-types of Maximinus Thrax, engraved before the outlines of his formidable chin and jaw were known. The influence of an official model, or set of models, upon a continuous series is bound to be very great indeed. In many a sixth- or fifth-century Greek series, with new dies made only every year or two, the effect of sequence was of course much less strong, being diluted by other differentiating factors, as shown, for example, by the issues of Zancle-Messana or Elis. But in a closely continuous series the model's influence will be strict and binding; and its style, by multiple imitation, will decline into a keenly observed but quite unoriginal treatment of a master-pattern — an accurate reflection of an artistically dominating composition.

Much the same is true of the influence upon coin-design of public statuary. When die-engravers set out to reproduce a piece of well known sculpture — say, the head of Pheidias' Olympian Zeus, — they are subordinating any free instinct of their own to express a personally felt style in favour of someone else's: and here again the result will be a stylistic treatment rather than original style. A similar effect may be created by the artificial imposition upon the designers of one age of the artistic conventions of another, or by the initial and overwhelmingly strong advent of a new cultural tradition or new mannerisms. Of the former we have examples in the deliberate archaism of the coinage of Athens, just when the most brilliant creative advance seemed likely, and in the studied Hellenism imposed by Hadrian and Gallienus, which required die-engravers to view their compositions through a revived idiom as unnatural as that of the pre-Raphaelites in painting or of Thomas Lovell Beddoes in poetry: of the latter we see many examples in the flood of Renaissance idiom which swept the Gothic idiom from the coinage of Europe, or in the startling originality of the types of Eire's coinage when that

state started on the path of political independence. In either case these were strong conditioning factors, forming a framework of idiom from which only a great artist could extricate himself and take his leisured godlike view from above, as a creative adapter and not merely a skilled absorber, as the creator of style and not merely the exponent of treatment.

There are, of course, many other factors which may result in the formation of a common denominator in the coin-design of a period. Take, for example, an ethical revolution such as Cromwell's in England, leading to an unadorned, puritan coinage more unattractive than any other in the long English series and contrasting with the brilliance of the restored monarchy of Charles II. Or consider the effect upon coin-designers of the necessity to choose this or that fabric or metal — the thin incuse-type flans of Magna Graecia, the limitations of the curious cup-shaped fabric of the later Byzantine coins, the different opportunities for skill afforded to designers of dies for soft gold compared with those for striking harder metals. All these factors, independent of true style, will give to the coinage of a particular period certain overall characteristics of treatment and idiom.

There is, too, another point which, though it is of immense importance, has often been overlooked and only recently re-emphasized. Accept, for the moment, the operation of the factors which I have already mentioned, and allow for the development from one period to another of a certain similarity in treatment and feeling. Will this mean that all dies in a given period are equally characteristic of that period? Most certainly not. At any time in the activity of a mint which invites the simultaneous services of a number of die-engravers you will find — whether in the ancient or the modern world — widely varying levels of technical ability. The late Oscar Ravel, who contributed to the study of Corinthian coinage a scholarly

comprehension of its purely physical features happily matched by a fine understanding of style, has left us in no doubt of this.<sup>1</sup> He proved, on the unbreakable evidence of die-links, that a die made by an artist in style (if I may use the phrase) could be immediately followed or accompanied by one which lacked all the finer points of design and execution — in other words, that the work of the artist and the work of the in-artistic craftsman could go forward side by side. Dr. Charles Seltman has reached very similar conclusions about the sixth century coinage of Athens, and has now postulated, on very strong grounds, that the barbarously conceived and executed early tetradrachms of Athens are the work of the ‘blacksmith’ or ‘plumber’ working at a time of special activity in the mint alongside the true artist.<sup>2</sup> These lessons could be repeated infinitely if enough material were carefully worked out: and other examples are ready to hand. The so-called ‘triumphal’ coins of Augustus’ moneyers Salvius Otho, Lurius Agrippa and Maecilius Tullus stand out from the mass of the rest of the contemporary Roman bronze. We can think of the coinage of Charles I prior to Nicholas Briot’s activity — rough, banal, lacking in taste — or of the beautiful dies of Thomas Simon, which ought to have put the Roettiers out of work for ever.

The style of a period, then, is ultimately the style of a leading exponent in a given branch of artistic creation, or of a group of such men. From them it is transmitted, transmuted, absorbed, copied academically, diluted, or — as in the case of the pre-Roman coins of Britain — utterly transformed into something so new and so skilful as to rank in its own turn as original creation. But, whatever branch of coinage we may be studying, it is vitally important so far as style is concerned to argue *ad hominem* and not *ad rem*. These remarks of mine are

<sup>1</sup> *Num. Cbron.*<sup>6</sup> V (1945), pp. 117 ff.

<sup>2</sup> *Num. Cbron.*<sup>6</sup> VI (1946), pp. 97 ff.

prompted in part by the recent and remarkable researches of Professor Michael Grant into the early imperial coinage of Rome.<sup>3</sup> In these, as you will find, he has set great importance on argument by style. For example, he has suggested that the moneyers' bronze coinage of Augustus is so diverse in style and execution that it must have come from more mints than Rome alone. Ultimately this question will be answered by detailed examination of dies. But in the meantime, as you will see, there are many cautions to be observed: for all these dies were made by X or Y or Z, and we cannot afford, where the truth is at stake, to argue on the style of a series or the style of a period — conceptions without a true existence.

X, Y, and Z, then — nameless men, making the dies for the coins we now handle, some of them technically skilful, some unskilled; some achieving the genius of perfect design, some trying and failing, and some just content to be good copyists. And that is not all. No designer of any quality allows his creative style to stand still. Instead he will be always experimenting, always moving from one position to another, making the best even better. Listen to Seltman for a moment. “The art-critic who is examining the finer dies made for any Greek city should cultivate a certain degree of restraint in making attributions. The easy way is to multiply your imaginary die-engravers and to invent the Master of this coin and the Master of that one. Restraint will lead the critic to the view that there were perhaps not so many ‘Masters’, each one of whom made a die, or a couple, and then no more; next, to the view that an engraver or artist can, and generally does, have several different manners, that his skill grows, his sensibility develops, his very style fluctuates throughout his artistic life. It is wiser to assume that a single good artist made a group of similar dies within a short period rather than to assume that half a dozen

<sup>3</sup> *From Imperium to Auctoritas* (Cambridge, 1946).

odd engravers tossed off a die apiece and then faded out.”<sup>4</sup> These are wise words: and how great the warning is when we apply them not only to the top-ranking engravers but to the larger host of average artists who were neither very good nor very bad, neither genuine creators nor frank copyists, but inevitably affected by the winds of genius which for ever blow freshly from around the greater men of the day.

What I have said so far applies in general to the whole field of die-engraving. It applies more strongly to the highly specialized achievement of portrait-engraving. M. Jean Babelon has recently examined, with all the flair and sympathetic instinct of his country, the special problems confronting the portrait-engraver.<sup>5</sup> These problems are not so formidable, indeed, for the engraver of the impersonal, idealizing portrait of god or hero. Early Greek coinage, by turning resolutely away from the portraiture of the living, was able to simplify its portrait style to a quite remarkable extent. Fundamentally, to engrave a portrait is to isolate a particular conception from life, to confine it within artificial bounds, to free it from temporal contexts and social contacts, and – especially in the case of profile portraits, which turn their eyes away from us – to purify it from some of the passionate emotions with which a facing portrait confronts us. Of course, if he is to make it at all significant, the engraver must give a portrait some sort of individuality. The sixth century B. C. made some play with the essential mobility of the mouth: but sixth century portraits, like those of the fifth, were imagined conceptions of gods and heroes, infused with a necessary minimum of human emotion and differentiated mainly by dress, attributes and the like — Athena with her helmet, Hera with her *polos*, Zeus with his majestic maturity and long tranquil hair, Apollo with his

<sup>4</sup> *Num. Chron.*<sup>8</sup> VIII (1948), pp. 1 ff., esp. p. 9.

<sup>5</sup> *Le portrait dans l'antiquité d'après les monnaies* (Paris, 1942).

youthfulness and his laurel wreath. These are not portraits but, as I have said, imagined conceptions anthropomorphically presented and enjoying, by the careful exclusion of emotion, a divine calm and profound Epicurean remoteness. True portraiture on coinage begins in Hellenistic times when engravers, isolating known and living personalities from life and confining them within the artificial limits of a circular field, then brought them back to life not only by the addition of attributes but by the infusion of various emotional features such as eye, mouth, hair, wrinkles, fatness or thinness and even attitude — as many Seleucid portraits, and those of Constantine too, showed so well.

Here we meet a factor of great importance in the analysis of portrait-style — namely, the engraver’s personal feelings about the man whose portrait he engraves. No engraver will react in a personal or emotional way to a scene of Heracles with the Nemean lion, or a view of Zancle harbour, or a trophy of Roman imperial weapons, or a ship, or a Tudor rose, or a figure of Britannia — to say nothing of heraldic designs. He will not be stirred by any particular like or dislike, hate or scorn, of these scenes or objects. His strong emotions — and most people have them — will be kept, in a time of absolute monarchy or stern autocracy, for the ruler himself. The Roman imperial coinage shows this well enough. Most of it is magnificent in its simple strength and violent realism; but realism, quite obviously, is impossible without the shrewd observation of personal idiosyncrasies: and personal idiosyncrasies have at various times included the cruel mouth of a Galba, the voluptuous arrogance of a Bourbon nose, the muddled and puffed up obstinacy of a Hanoverian eye. To such marks of character every die-engraver of any ability is bound to respond, each in his own way.

We are apt to say, in the course of normal, everyday con-

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versation, that this man has style or that that woman's clothes show style. We mean by this that, in their own ways, these people are original and individual in behaviour and appearance, adapting certain elements from a common pool of fashion in behaviour and dress and making these elements their own. To those who copy them we tend to refuse the same distinction: the copyists, we say, are in the style of the originators, the leaders, the pioneers. Style in coinage, properly understood, seems to mean the fertile impact upon a former tradition exerted by a deliberately new idiom – in other words, the ability of a genuinely creative artist to step out of one set of conceptions into another, somehow fusing the two together in an altogether original and personal form. If this is true, then it is clear that the criterion of style in the classification and analysis of coinage is beset with very formidable and desperate dangers. Every other criterion must be used first — weight, metal, fabric, die-relationship, type-content, associated evidence, and so forth. If these are properly applied and correctly interpreted, they will lead us generally to a clearer understanding of style, for they will surely indicate the activity of certain definite men at certain definite times; and, by the most patient and cautious observation, our successors may be able to advance over the next stage of the journey, pushing open the doors of the mint gently, and quietly counting the engravers at work inside, and actually looking over their shoulders in order to learn their individual characteristics, even if their names are lost for ever.

C. H. V. SUTHERLAND



## THE ALEXANDER HOARD OF MEGALOPOLIS<sup>1</sup> (SEE PLATES I-VI)

In the autumn of 1947, a hoard of forty silver coins was sold to the writer by a European dealer. The dealer said that he had acquired it from a Greek at Tripolitsa who maintained it had been unearthed near the Philipian Colonnade at Megalopolis which is not far distant from Tripolis or Tripolitsa.<sup>2</sup> The

<sup>1</sup> A list of abbreviations used for the works most frequently cited is here given.

BMC, *Ptolemies* = *Catalogue of the Greek Coins in the British Museum, The Ptolemies*, London, 1883.

Müller = L. Müller, *Numismatique d'Alexandre le Grand*. Copenhagen, 1855.

Newell, *Reattribution* = Edward T. Newell, *Reattribution of Certain Tetradrachms of Alexander the Great*, 1912. (Reprinted from: *American Journal of Numismatics* XLV (1911) 1-10, 37-45, 113-125, 194-200; XLVI (1912) 22-24, 37-49, 109-116).

Newell, *Kyparissia* = Edward T. Newell, *Alexander Hoards — Introduction and Kyparissia Hoard* (Num. Notes & Monographs. No. 3). 1921.

Newell, *Demanbur* = Edward T. Newell, *Alexander Hoards — II. Demanbur, 1905* (Num. Notes & Monographs. No. 19). 1923.

Newell, *Andritsaena* = Edward T. Newell, *Alexander Hoards — III. Andritsaena*. (Num. Notes & Monographs. No. 21). 1923.

Newell, *Olympia* = Edward T. Newell, *Alexander Hoards — IV. Olympia*. (Num. Notes & Monographs. No. 39). 1929.

Noe, *Bibliography* = Sydney P. Noe, *A Bibliography of Greek Coin Hoards* (Second Edition). (Num. Notes & Monographs. No. 78). 1937.

SNGC = *Sylloge Nummorum Graecorum, The Royal Collection of Coins and Medals, Danish National Museum, Macedonia*. Copenhagen, 1943.

SNGF = *Sylloge Nummorum Graecorum, Vol. IV. Fitzwilliam Museum: Leake and General Collections. Part II: Sicily to Thrace*. London, 1947.

SNGL = *Sylloge Nummorum Graecorum. Vol. III. The Lockett Collection*. London, 1938.

Svoronos = J. N. Svoronos, *Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων*. Athens, 1904, 4 vols.

<sup>2</sup> Cf. Schultz in *Excavations at Megalopolis*, Suppl. Papers of the Society for the Promotion of Hellenic Studies, I, 1892, pp. 56-67, pls. XV, XVI. Cf. Frazer, *Pausanias' Description of Greece*, IV, p. 321. Cf. Livy, XXXVIII, 34; also Pausanias, VIII, 30, 6; "The colonnade in the Agora named the Philipian Colonnade was not erected by Philip, son of Amyntas, but the Megalopolitans gave the building that name out of compliment

contents of the hoard, which has three coins of Megalopolis, confirm the statement with regard to provenance. All the coins were said to have been of identical appearance, and originally had a thin surface covering of oxide, which was purplish in color. They had been cleaned somewhat, but rather badly, before they were sent to my collection.<sup>3</sup> Unfortunately, some were scratched, and the preservation, except for the two octadrachms of Arsinoë, is none too good. It is obvious from their similarity in pattern, the present color of the coins, and other data that the pieces all came from a single find, buried at the same time and kept intact. I believe that the hoard is complete. This Peloponnesian hoard contains many issues of Alexandrine types. In general, on the obverse there is the young head of Heracles turned to the right; on the reverse, the seated Zeus Aetophor faces left. The throne sometimes has a back, but often not. On the earlier issues, the legs of Zeus were

to him." Pausanias (VIII, 32, 1) also says that near the Thersilion is a house, now the property of a private man, which was originally built for Alexander, son of Philip. Beside this house is an image of Ammon with rams' horns on his head, as on our Lysimachus coins. Since the coins are said to have been found on the other side of the river from the Thersilion, it is unlikely that they would have belonged to the owner of Alexander's house. The Philippian Stoa was probably rebuilt after 183 B. C. when Philopoemen, whom Philip later despatched men to Megalopolis to kill after he had poisoned Aratus of Sicyon, applied part of the money derived from the capture of Sparta to rebuilding a colonnade which was partially destroyed by Cleomenes, but the original colonnade was built before 222 as the architectural fragments show. Livy, XXXVIII, 34, says that it was destroyed in 189 B. C. by the Spartans. A tile with the inscription ΦΙΛΙΠΠΕΙΟΥ leaves no doubt about the identification.

<sup>3</sup> Mr. William L. Clark and Mr. Fred W. Armstrong of the University of Toronto working in the American Numismatic Society in New York, where I spent several weeks in study of the Hoard, cleaned the coins still further. Mr. Armstrong kindly made casts for me, and Mr. Sydney P. Noe gave me much good advice. He also showed me parallels from the collections of E. T. Newell and Sir Ronald Storrs at the American Numismatic Society and a study in manuscript on a series of coins of Alexander III struck at Sicyon now published as *Numismatic Studies*, No. 6, 1950. I hereby acknowledge my great indebtedness to Mr. Noe who encouraged and inspired me to publish this hoard promptly and to the editor, Sawyer McA. Mosser, for his thorough revision of my manuscript, and others such as Mr. William L. Clark for his photographs and especially to Mr. Richard D. Kenney who helped me with casts.

placed parallel to each other, on the later examples, the right foot is drawn back, but this diversity continues into the third century where we find both positions, and often, as on No. 1, the left leg is drawn back and up. The king's title sometimes occurs either at the left or in the exergue, as is noted in the catalogue.

## ALEXANDER III OF MACEDON

336-323 B. C. AND POSTHUMOUS ISSUES

*Amphipolis*

c. 322-321 B.C.

1. Head of young Heracles to r. in lion's skin, within circle of dots.

*Rev.* ΒΑΣΙΛΕΩΣ on l., ΑΛΕΞΑΝΔΡΟΥ on r. Bearded Zeus Aetophor, with nude upper body as in Phidias' Zeus, with l. leg drawn back and up, seated on stool (diphros) with two dotted crossbars to l., with sceptre (represented by vertical series of dots) in l. hand, within circle of dots. In l. field, ☉.

Tetradrachm. Müller 860; Newell, *Andritsaena*, p. 7, no. 24; *Demanbur*, p. 31, nos. 1512 ff.; *Reattribution*, type XLVIII, Pl. 12, nos. 6, 8, 10; SNGC, Pl. 16, 686 (ca. 321 B.C. with same monogram). Good. 16.75 grms.

PLATE I.

c. 325 B.C.

2. Similar to No. 1.

*Rev.* Similar to No. 1. In l. field, cornucopiae.

Tetradrachm. Müller 367-371; Newell, *Demanbur*, p. 30, no. 1043; *Reattribution*, Pl. 9, nos. 5, 8, 9, 11; SNGC, Pl. 16, 681. Good. 16.50 grms.

PLATE I.

3. Similar to No. 1, without circle of dots.

*Rev.* Similar to No. 1. Under throne, M. In l. field, caduceus.<sup>4</sup>

Tetradrachm. Cf. Müller 97; Newell, *Demanbur*, p. 29, no. 614; *Reattribution*, Pls. 6, 7. Good. 16.45 grms.

PLATE I.

*Pella*

336-320 B.C.

4. Similar to No. 1.

*Rev.* ΒΑΣΙΛΕΩΣ in exergue, ΑΛΕΞΑΝΔΡΟΥ on r. In l. field, wreath above A. Beneath throne, ☉.

<sup>4</sup> Dr. George Huntington Williams of Baltimore has a similar unpublished tetradrachm with a caduceus.

Tetradrachm. Newell, *Andritsaena*, p. 8, nos. 33-35. Cf. also Müller nos. 197, 550, 553 (with A inside wreath); SNGL, Pl. XXVII, 1446 (wreath alone); SNGC, Pl. 19, 764 (which has wreath alone to 1). This variety is generally assigned to Phaselis or Side; three specimens at the American Numismatic Society lend support to the attribution to Pella. Very good. 16.50 grms. PLATE I.

*Pella (or Bayblon)*

331-320 B. C.

5. Similar to No. 1.

*Rev.* Similar to No. 1. In l. field,  $\mathcal{M}$ .

Tetradrachm. Cf. SNGC, Pl. 21, no. 818 and specimens in the Newell Collection at the American Numismatic Society. Good. 16.51 grms. PLATE I.

*Pella*

6. Similar to No. 1.

*Rev.*  $\Delta\Lambda\Xi\Xi\text{AN}\Delta\text{POY}$  on r. Similar to No. 1. Beneath throne,  $\mathcal{W}$  In l. field,  $\mathcal{R}$ .

Tetradrachm. Good. 15.56 grms.

PLATE I.

*Megalopolis*

7. Similar to No. 1.

*Rev.*  $\Delta\Lambda\Xi\Xi\text{AN}\Delta\text{POY}$  on r.; traces of  $\text{BA}\Sigma\text{I}\Lambda\text{E}\Omega\Sigma$  on l. Similar to No. 1, but with r. leg of Zeus drawn back. Under throne,  $\Gamma$ . In l. field, syrinx above  $\text{ME}$ .

Tetradrachm. From same reverse die as specimen in Newell Collection. Worn. 15.75 grms. PLATE I.

8. Similar to No. 1.

*Rev.*  $\Delta\Lambda\Xi\Xi\text{AN}\Delta\text{POY}$  on r.; traces of  $\text{BA}\Sigma\text{I}\Lambda\text{E}\Omega\Sigma$  in exergue. Similar to No. 7. In l. field,  $\text{TI}$  or  $\text{TE}$  above syrinx above  $\text{ME}$ . Beneath throne,  $\mathcal{R}$ .

Tetradrachm. Worn. 16.19 grms.

PLATE II.

9. Similar to No. 1.

*Rev.*  $\Delta\Lambda\Xi\Xi\text{AN}\Delta\text{POY}$  on r. Similar to No. 7. In l. field, syrinx above  $\text{ME}$  above  $\text{TE}$ .

Tetradrachm. Worn. Brittle, due to crystallization of metal; segment broken off. 15.50 grms. PLATE II.

Such tetradrachms as nos. 7-9 were first identified by V. Prokesch-Osten, *Numismatische Zeitschrift*, I, 1869, p. 48, nos. 228-229. (ΛΥΣ on one, M in circle on other). There are three in the American Numismatic Society, but with different monograms. The use of the syrinx is natural, since coins of Megalopolis often have Pan and the syrinx (cf. Seltman, *Greek Coins*, p. 165); Pausanias, VIII, 30, 3 speaks of a bronze Pan in a colonnade near the Philipian Colonnade. Cf. also VIII, 31, 3 where is mentioned a table with a relief of Pan with a pipe. In VIII, 30, 2 Pausanias mentions "a stone image of Pan, surnamed Oeneis."

*Sicyon*

10. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ on r. Similar to No. 7. Beneath throne, ΦΙ. In l. field, thunderbolt and ☉.

Tetradrachm. Müller 896; *Alexander Coinage of Sicyon*, Pl. XVII, 69.1. Good. 15.82 grms. PLATE II.

11. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ on r. Similar to No. 7. Beneath throne, Ψ. In l. field, crescent with concave side upwards (unique occurrence on such coins) above slender figure of a Sicyonian ephebe, l. foot advanced, hands over head, holding a long braided fillet which falls down his back.

Tetradrachm. *Alexander Coinage of Sicyon*, Pl. XIV, 48.1 (this coin); cf. Müller 866-874, especially 867 (same monogram but with no crescent). Good. 15.92 grms. PLATE II.

Other specimens with the ephebe as a symbol are at the American Numismatic Society. Cf. Müller, 637, pl. 16, 1, 2; Newell, *Demanhur*, nos. 1649ff., pl. IV, 1 (18 specimens of youth with outstretched arms); Noe in the *American Numismatic Society Museum Notes*, III, 1948, p. 3, pl. I, 1 (the bird does occur on later issues but Noe says "that the die break in its beginning form precludes the identification as a bird" as Newell had suggested. Lechat, *Rev. Arch.*, II, 1903, p. 205, pl. XV, published a marble relief, from Nemea on the Sicyonian

frontier, with a young victor in the Nemean Games who wears two braids down his back. He interpreted it as an "athlète vainqueur en prière," like the Praying Boy formerly in Berlin. Svoronos, *Journal International d'Archéologie Numismatique*, XXI, 1927, pp. 34-41 (a reference omitted in discussions of the problem), thinks that this relief (p. 34, fig. 30) and the Sicyonian coins represent one of the Oneiroi (dream figures) on the couch of Hera of Argos, described by Pausanias. The type was invented by Polyclitus of Sicyon and repeated by Boedas, son of the Sicyonian Lysippus. Cf. also Pliny, N. H., XXXIV, 66-73; Vitruvius, III, praef. 2; Macdonald's *Coins of the Hunterian Collection*, I, p. 307, no. 108, pl. XXI, 10. But Babelon, *Rev. Num.*, VIII, 1904, pp. 117-133, p. 119, figs. 1-4 (fig. 2 like ours) showed that the statue occurred on coins of Sicyon in different attitudes (sometimes r. foot advanced, sometimes l. Cf. Newell, *Reattribution*, pl. 16, nos. 1, 2, and *Demanhur*, IV, 1). It perhaps represented the hero Melampus or some athletic statue of the annual ephebe. He traces the type back to the dancing Apollo sculptured for Sicyon by the Cretan artists Dipoenis and Scyllus but modified by Polyclitus, Lysippus, and others and adapted to statues of Sicyonian athletes, heroes, and divinities. Sestini and others have thought that a sacrifice of a dove was meant, or possibly a boy representing Apollo at the festival in honor of the slaying of a dragon as at Delphi. Whomever the coin represents, the type is Sicyonian, since Newell, *Demanhur*, pp. 75-79, has shown that the flying dove (which is a symbol of Sicyon often represented on her coins) often occurs on Sicyonian coins toward which the figure stretches out his arms as if to seize the bird. One specimen was supposed to depict the escaping dove. Cf. also SNG, Copenhagen, *Macedonia*, pl. 18, 733 (third century B.C.) where the dove is clearly represented. Head, *A Guide to the Principal Coins of the Greeks*, 1932, p. 26,

pl. 14, no. 32 discusses coins of Catana with a lustral fillet. There are tufts of wool at intervals like an egg and dart pattern and a bell-shaped end, like a bell on a cord, used by the annual victorious ephebe to dip in the sacred basin and sprinkle with sacred water and scare the birds away. The figure is probably not Melampus, and there is no fishing net. On an early coin in the Sicyon series a chubby boy appears; later there are all kinds of variation in the attitude of the ephebe. He is either an ephebe or victor with a lustration fillet with a ritualistic terminal tassel.

12. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ at r.; ΒΑΣΙΛΕΩΣ in exergue. Similar to No. 7. Beneath throne, NO. In l. field, cornucopiae.

Tetradrachm. Good. 16.40 grms. *Alexander Coinage of Sicyon*, Pl. XI, 35.1.

PLATE II.

*Aradus*

13. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ on r. Similar to No. 7. Beneath throne, ΑΠ.

Tetradrachm. Good. 16.70 grms.

PLATE II.

14. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ (worn) at r. Similar to No. 1. Beneath throne, A. In l. field, Γ.

Tetradrachm. Good. 16.60 grms.

PLATE II.

*Babylon*

15. Similar to No. 1.

*Rev.* ΦΙΛΙΠΠΟΥ on r.; ΒΑΣΙΛΕΩΣ in exergue. Similar to No. 7. Beneath throne, Φ. In l. field, M.

Tetradrachm. Newell, *Olympia*, Pl. III, 65; cf. *Acta Archaeologica*, XIII (1942), p. 254, fig. 40. The inscription is that of Philip III, who was put to death in 317 B.C. Good. 16.40 grms.

PLATE III.

*Babylon*

after 317 B.C.

16. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ (worn) on r.; ΒΑΣΙΛΕΩΣ (worn) in exergue. Similar to No. 7. Beneath throne, Ξ ( ? ). In l. field, ΠΠ within wreath.

Tetradrachm. Cf. Müller 734; Newell, *Andriasaena*, p. 15, no. 83, Pl. IV; similar specimens in Newell Collection at American Numismatic Society. Good. 16.20 grms. PLATE III.

*Uncertain Mints*

*Peloponnesus (?)*

17. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ in exergue; ΒΑΣΙΛΕΩΣ on r. Similar to No. 7. Beneath throne, ΓΟ or ΠΥ. In l. field, round altar or cista with coiled snake on top.

Tetradrachm. Cf. Newell, *Olympia*, Pl. IV, 75 (assigned to a Peloponnesian mint, but has ΠΥ beneath throne and thunderbolt in l. field); Müller 537. Fine. 16.02 grms. PLATE III.

*Susa (?)*

18. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ (worn away) to r. Similar to No. 1. Beneath throne, Δ. In l. field, anchor.

Tetradrachm. Cf. Newell, *Eastern Seleucid Mints*. Pl. XXII, 1 and 9 for style of obverse. Fair. 16.15 grms. PLATE III.

*Susa (?) or Ecbatana (?)*

19. Similar to No. 18.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ at r.; ΒΑΣΙΛΕΩΣ in exergue. Similar to No. 18. Beneath throne, T over uncertain monogram. In l. field, wreath (?) and M. Tetradrachm. Good. 16.30 grms. PLATE III.

20. Similar to No. 18.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ (worn) at r.; ΒΑΣΙΛΕΩΣ (worn) in exergue. Similar to No. 18. Beneath throne, T above ♦. In l. field, wreath (?) and M.

Tetradrachm. Good. 16.10 grms. PLATE III.

*Aradus (?) or Amphipolis (?)*

21. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡΟΥ (worn away) at r. Similar to No. 7. Beneath throne, A above KI. In l. field, caduceus (?).

Tetradrachm. Fair. 16.26 grms. PLATE III.




For insertion between pages 20 and 21 of A. N. S. MUSEUM NOTES IV.

## *A Correction to*

THE ALEXANDER HOARD OF MEGALOPOLIS

in *American Numismatic Society Museum Notes*, IV, pp. 13-28

On re-examination of the actual specimen and comparison of it with better preserved coins, it has been found that the coin published as no. 19 on p. 20 and Pl. III, would better be attributed to an uncertain mint, possibly in Phoenicia, rather than to Susa (?) or Ecbatana (?). The description of the reverse should be altered to read: ΦΙΛΙΠΠΟΥ at right; ΒΑΣΙΛΕΩΣ in exergue. Similar to no. 15; in left field ; good; 16.30 grams; PLATE III.

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*Uncertain Mint (possibly barbaric)*<sup>5</sup>

22. Similar to No. 1.

*Rev.* ΑΛΕΞΑΝΔΡ[ΟΥ] at r. Similar to No. 7. Beneath throne, ΔΙ or ΑΙ or Ν. In l. field, race-torch.

Tetradrachm. Cf. Müller 42; SNGL, Pl. XXVII, 1443 (with M), 1444; SNGC, Pls. 16-17. Good. 16.72 grms. PLATE IV.

## KINGDOM OF THRACE

LYSIMACHUS, 297-281 B.C.

*Sardis (?)*23. Head of Alexander the Great, idealised, with Ammon's horn, wearing diadem, to r., within a circle of dots.<sup>6</sup>

*Rev.* ΒΑΣΙΛΕΩΣ on r.; ΛΥΣΙΜΑΧΟΥ on l. Athena seated to l., wearing a crested Corinthian helmet, chiton, and peplos, holding in her outstretched hand a small Victory who is crowning the king's name. Athena rests her l. arm on a shield decorated with a lion's head. A spear rests against her l. shoulder. In extreme l. field, ☉.

Tetradrachm. Good. 16.25 grms.

PLATE IV

*Amphipolis*

24. Similar to No. 23.

*Rev.* Similar to No. 23. In l. field, caduceus combined with what appears to be Γ (perhaps a key or other object with a caduceus handle. In r. field, ♣.

Tetradrachm. For symbol cf. SNGC, Pl. 22, nos. 1113 and 1114; SNGF, Pl. XXXIII, 1845. For monogram cf. SNGC, Pl. 22, no. 1112; Müller, 101-108. Mint condition. Eight similar specimens at American Numismatic Society with different monograms. 16.15 grms. PLATE IV.

<sup>5</sup> In *Acta Archaeologica*, Copenhagen, XIII, 1942, pp. 248-251, Breitenstein has argued that Alexander tetradrachms with a torch belong to the Macedonian town of Uranopolis (Imhoof-Blumer, *Monnaies Grecques*, 1883, p. 97), founded on the peninsula of Mt. Athos c. 300 B. C. by Alexarchus, brother of Cassander. Many have a lambda above the torch. One with the symbol of Aphrodite Urania has M under the throne. Cf. SNGC, nos. 697-708, pl. 17. Breitenstein thinks that other Alexander tetradrachms (see his figs. 22-24) with the torch belong to Aptera in Crete. But many numismatists say that Breitenstein's contention is based on coins of Uranopolis which are more than suspect.

<sup>6</sup> There was a statue of Ammon with ram's horns on his head at Megalopolis, Pausanias, VIII. 32, 2.

## KINGDOM OF EGYPT

PTOLEMY II PHILADELPHUS, 286–245 B.C.

*Alexandria (?) or Tyre (?)*

25. Diademed head of Ptolemy II to r. Behind head,  $\Delta$ .  
*Rev.* ΠΤΟΛΕΜΑΙΟΥ (worn) to l.; ΒΑΣΙΛΕΩΣ to r. Eagle standing.  
 l. on thunderbolt. In l. field  $\Pi$  above ΚΛ. In r. field, oval shield.  
 Tetradrachm. Svoronos, p. 78, nos. 528–529, Pl. XII, 2; cf. Newell,  
*Olympia*, Pl. IV, 79 (with monogram ΜΝ). Worn. 12.54 grms. PLATE IV.

*Tyre*

26. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Psi$  above club.  
 Tetradrachm. Cf. Svoronos, Vol. II, Pl. XIX, 644. Good. 13.50 grms.  
 PLATE IV.

27. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Psi$  above club.  
 Tetradrachm. Cf. B. M. C., *Ptolemesi*, Pl. IV, 8; Pl. V, 6; Svoronos,  
 Vol. IV, Pl. 8, 30, 31. Good. 13.25 grms. PLATE IV.

28. Similar to No. 25.  
*Rev.* Similar to No. 27.  
 Tetradrachm. Worn. 12.57 grms. PLATE IV.

29. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Gamma$  above Α.  
 Tetradrachm. Worn. 13.00 grms. PLATE V.

*Uncertain Mint*

30. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field, ΠΤ above Α above  $\Theta$ .  
 Tetradrachm. Cf. Svoronos, Pl. XII, 16. Good. 13.81 grms. PLATE V.

*Idalium in Cyprus (?)*

31. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Sigma$  above oval shield. In r. field  $\Delta$   
 (often read as  $\Phi$ ).

Tetradrachm. B.M.C., *Ptolemies*, Pl. IV, 3: cf. Svoronos, Pl. XIV,  
6. Good. 13.16 grms. PLATE V.

*Cyprus (?)*

32. Similar to No. 25. Behind head,  $\Delta$ . Punch mark: six-pointed star.  
*Rev.* Similar to No. 25. In l. field,  $\Sigma T$  above  $\nabla$ . Indistinct punch mark  
in r. field.  
Tetradrachm. Svoronos, Pl. VIII, 27 and Vol. IV, Pl. B, 6. Good. 13.46  
grms. PLATE V.
33. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Gamma$  above  $X$ . In r. field, defaced shield  
or circular punch mark.  
Tetradrachm. Cf. Svoronos, Pl. XII, 5. Good. 13.15 grms. PLATE V.
34. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $A (?)$  above  $\nabla P (?)$ . Two punch marks  
in r. field.  
Tetradrachm. Fair. 13.10 grms. PLATE V.
35. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Sigma T$  above  $\nabla P$ .  
Tetradrachm. Fair. 13.25 grms. PLATE V.
36. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $X$  above  $\Sigma T$  above  $\Phi I$ .  
Tetradrachm. Fair. 12.90 grms. PLATE VI.
37. Similar to No. 25.  
*Rev.* In l. field,  $\Pi$  above  $\nabla P$ .  
Tetradrachm. Good. 12.95. PLATE VI.
38. Similar to No. 25.  
*Rev.* Similar to No. 25. In l. field,  $\Sigma T (?)$  above  $\nabla P (?)$ .  
Tetradrachm. Good. 13.05 grms. PLATE VI.

## ARSINOË II, PHILADELPHUS

struck under Ptolemy II and III

39. Head of Arsinoë II as a goddess<sup>7</sup>, crowned with veil, stephane, with sceptre, to r. In l. field, EE (29 years after death or deification of Arsinoë, i. e., 242 B.C.).

*Rev.* APΣINOHΣ at l.; ΦΙΛΑΔΕΛΦΟΥ at r. (cf. brother-loving Arsinoë). Double cornucopiae wreathed and full of fruits, poppies, acorns, etc., the whole within circle of dots.

Octadrachm. Svoronos, Pl. XXVIII, 6. Fine. 33.70 grms. PLATE VI.

40. Similar to No. 39. In l. field, ΣΣ (41 years after death of Arsinoë, i. e., 229 B.C.)

*Rev.* Similar to No. 39.

Octadrachm. Cf. Svoronos, Vol. II, p. 144, no. 953, Pl. XXVIII, 17 (where B.M.C., *Ptolemies*, is only specimen noted). This, the latest coin in the hoard, is unusually well preserved, showing that it had not long been in circulation; perhaps the hoard was buried at the time of the battle of Sellasia in 221 B.C. Fine. 34.21 grms. PLATE VI.

We have, then, a typical third century Peloponnesian hoard, the fifth hoard containing Alexander tetradrachms to be known from the Peloponnesus, similar to ones found at Epidaurus, Kyparissia, Andritsaena, Patras, Sophikon, Sparta, Olympia, etc. Of these, the latest is that of Olympia, buried 235–225 B. C., but our hoard is later (229–211), probably the latest such hoard so far found. Much use has been made of Müller, *Numismatique d'Alexandre le Grand*, Copenhagen, 1855, though there have been revolutionary changes in the study of these issues, especially by Newell, since his time. Müller used symbols on the reverse for the identification of mints, but now we study in detail the obverse dies. Their styles and succession

<sup>7</sup> In 280 B. C. Arsinoë, widow of Lysimachus, brought as dowry some of the Ionian cities and Marathus. On wealth of Ptolemy cf. Theocritus, XVII, 12 ff. who speaks of a golden mansion built for him in the house of Zeus, 96 ff. The deification of Arsinoë in 270 B. C. brought the royal treasury large sums of money from temples and so great quantities of gold octadrachms and silver decadrachms were coined in her honor, for Ptolemy's wealth outweighed the wealth of all the princes on the earth. Cf. Nock, *Harvard Studies*, XLI, pp. 4 ff.; Seltman, *Greek Coins*, p. 292.

give us a more reliable grouping and chronology. References to this work are given throughout the catalogue. Müller's book is out of date but still very useful and the only such detailed treatment. As Newell<sup>6</sup> has said: "one of the greatest desiderata to students of Greek numismatics is a complete reworking of the entire coinage bearing the types of Alexander the Great, with a view to determining dates, mints, and issues of this extraordinarily large and interesting series of ancient coins." The basis for such research will undoubtedly be found in a study of such coins as those of Megalopolis and of other places. Such a study will yield much new material for the history of Macedon and of Alexander and increase our knowledge of Alexander as the study of Roman hoards has increased the knowledge of Roman consular denarii.

This Peloponnesian hoard is very important, (1) especially because it comes from Megalopolis, which issued Alexander coins for a short time only and because it contains coins of that mint of such short duration, (2) because of the presence of some fourteen Ptolemy tetradrachms and two Arsinoë octadrachms. There are twenty-one Alexander tetradrachms, one of Philip III, and two of Lysimachus. Noticeable is the rarity of Lysimachus coins (only two) showing perhaps that Ptolemaic and Alexander coins were preferred to the issues of Lysimachus in the Peloponnesus in the second half of the third century B. C.

The Sicyonian examples indicate that the Sicyonian mint, started about 330 B. C. by Antipater, Alexander's viceroy after he had conquered the Peloponnesus, was an important one for Alexander and his successors. During the campaigns in Asia Minor, the Peloponnesus was a recruiting ground for the Macedonian armies. Many were drafted or went voluntarily from the rugged mountains of Arcadia and Laconia to enroll

<sup>6</sup> Newell, *Kyparissia*, p. 1.

as mercenaries at the recruiting station of Taenarum. Strong Macedonian forces were necessary in the Peloponnesus to fight against the Spartan Agis (330 B. C.), and to quell revolts among rebellious Greeks. There was an active mint at least till 251 B. C. at Sicyon, where later there was a grave of Sicyonians who had fallen at Megalopolis (Pausanias, II, 7, 4) and at Sellasia (221 B. C.). The original owner of the Megalopolis hoard, the first such to be found at Megalopolis, founded in 371 B. C. by Epaminondas, where in the market place was a statue of its great historian, Polybius, was possibly a native town or local shop-keeper (rather than a soldier whose pay would be small). He hoarded coins from Amphipolis, Pella, Sicyon, Megalopolis, and many Asia Minor issues from Aradus, Sardis, Susa, Cyprus, Tyre, and even Cyprus and Babylon. As a contemporary of Antipater, he would have received Alexander tetradrachms, especially those of the principal Macedonian mints of Amphipolis and Pella. The pieces of Megalopolis and Sicyon represent the coins which were in the local market.

I might point out some historical significances of the hoard. We now realize that Megalopolis played an important role in the growth of the Macedonian Empire and that there was even a Ptolemy subsidy in the Peloponnesus where the Arcadians and especially the Megalopolitans hated the Lacedemonians. The defeat of Sparta and Agis and the union with the Achaean League helped Macedonia. Cleomenes got revenge when finally after several unsuccessful attempts in 222 B. C., he captured Megalopolis (Polybius, II, 55) and destroyed it (as Philip did Olynthus) with such systematic animosity that nobody would have thought it possible to reinhabit it. He carried its art treasures back to Sparta (cf. Walbank, *Aratos of Sicyon*, p. 108). Our hoard was buried and escaped him. When Cleomenes came to Sicyon, Aratus, sending his sons as hostages, called for the aid of Antigonus and the Macedonians (cf. Pau-



sanias, II, 9, 2; Holm, *History of Greece*, IV, pp. 235–240; *Cambridge Ancient History*, IV, p. 670). A larger Achaean League was formed with Macedonian presidency; Aratus, who had been under Egyptian pay, joined Macedonia, Egypt's rival. Ptolemy was supposed to have aided Sparta, if not with men, with money. Cleomenes took Megalopolis, as we have said, but most of the inhabitants fled with Philopoemen. Antigonos evidently tried to influence Ptolemy to withdraw his aid to Sparta and to help him overthrow Sparta. Perhaps instead of sending more money to Sparta, Ptolemy sent money to help Megalopolis. Our hoard indicates that there was more Egyptian financial aid at this time in the Peloponnesus and at Megalopolis than has been previously supposed. Egypt was subsidizing the Peloponnesus against Macedon, now here, now there. Evidently there was a large proportion of actual Ptolemaic coins in circulation in the Peloponnesus. The Arsinoë octadrachms which were coined in Egypt, prove that Ptolemaic subsidizing was not limited to credit but took the form of actual currency. In fact, Polybius, II, 62, cites Phylarchus as wrongly saying that 6000 talents came to the Lacedaemonians (2000 of this to Cleomenes) but quotes him (II, 63) to the effect that just ten days before the battle, an envoy from Ptolemy reached Cleomenes informing him that the king withdrew his subvention and asked him to make peace with Antigonos. "But if at this very time he had six thousand talents at his command, he could have been more generous than Ptolemy himself in the matter of subventions; and if he could only dispose of three hundred talents it was enough to enable him to continue the war against Antigonos with absolute financial security. But to state in one breath that Cleomenes depended entirely on Ptolemy for money and at the very same time he was in possession of such a large sum, is a sign of the greatest levity and want of reflection." (Polybius, II, 63). In

any case, such Egyptian aid probably contributed to the defeat of Cleomenes at Sellasia (221 B. C., only eight years after the date of our latest coin). In the Achaean contingent of 4300 (consisting, according to Pausanias, VIII, 49, 4 of troops from every city in Achaea and Arcadia) were at least 1000 Megalopolitans (Polybius, II, 65) helping the Macedonians with a total force of 28,000 foot and 1200 horse against the 20,000 of Cleomenes. Only 4000 Spartans survived. Cleomenes fled to Sparta and to Gythium and thence to Alexandria where he soon died. Antigonus took Sparta, but returned to Macedonia to defeat the invading Illyrians in 221.

This hoard then, containing coins of the Alexander mint of short duration at Megalopolis as well as Ptolemy coins suggests Egyptian aid to Megalopolis and to the Peloponnesus. It is interesting that Polybius (XV, 25, 14) speaks of Agathocles sending a Ptolemy of Megalopolis, son of Agesarchus (cf. *Cambridge Ancient History*, VIII, p. 149) as ambassador to Rome to announce the new king's successor, to beg for mediation with Antioch, and possibly to get rid of him. This was probably the Ptolemy of Megalopolis who wrote a history of Ptolemy IV (quoted by Athenaeus, 246 e, 425 e, 577 f). He had lived in Egypt at the court of Ptolemy about 222 B. C. His name shows that Megalopolis still had negotiations with Egypt, as our hoard buried probably before 222 B. C. proves for earlier times.

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## BEGINNINGS OF THE CISTOPHORIC COINAGE (SEE PLATE VII)

There are four passages in Livy concerned with an account of booty recorded for the triumphs of Roman generals following the defeat of Antiochus III at Magnesia in 190 B. C. In each of the four passages there is citation of the coins which are said to have been displayed in the triumphs with specific numbers for each of two denominations, "Attic tetradrachms" and "cistophori."

At the Roman triumph of M. Acilius Glabrio (190 B. C.), it is stated that "there were carried..... three thousand pounds of silver bullion, one hundred thirteen thousand minted Attic four-drachma pieces, *cistophori* to the number of two hundred and forty nine thousand, embossed silver vessels. ."<sup>1</sup>

In 189, occurred the triumph of Scipio Asiaticus in which we are told that there were "one hundred and thirty seven thousand four hundred and twenty pounds of silver, two hundred and twenty four thousand Attic four-drachma pieces, three hundred and twenty one thousand seven hundred *cistophori*, one hundred and forty thousand gold coins of Philip,....."<sup>2</sup>

At the triumph of Gnaeus Manlius Vulso in 187, he carried "two hundred and twelve golden crowns, two hundred and

<sup>1</sup> Livy XXXVII, xlvi, 4. (The translation of this and the following passages are those of the Loeb Library Edition.) This triumph celebrated victories over Antiochus III at Thermopolae and over the Aetolians at Heraclea. Heraclea was plundered. The proportion of cistophori to "minted Attic four-drachma pieces" is more than two to one.

<sup>2</sup> Livy XXXVII, lix, 4. Scipio's triumph celebrated his decisive victory over Antiochus III at Magnesia ad Sipylum in 190. The proportion of cistophori to Attic tetradrachms was roughly three to one.

twenty thousand pounds of silver, two thousand one hundred and three pounds of gold, of Attic four-drachma pieces one hundred and twenty-seven thousand, of *cistophori* two hundred and fifty thousand, of gold Philippei sixteen thousand three hundred and twenty; there were also. . . . ."<sup>3</sup>

A fourth triumph, that of Aemilius Regillus in 189 B. C., mentions "thirty four thousand two hundred Attic four-drachma pieces and one hundred thirty-two thousand *cistophori*."<sup>4</sup>

A passage in an earlier book refers to the triumph of T. Quinctius Flaminius, 194 B. C. (Livy XXXIV, lii, 5.) "Of unwrought silver he had forty-three thousand two hundred and seventy pounds. . . . . Of minted silver there were eighty-four thousand Attic coins called 'tetrachma' and the weight of silver in them is about equivalent to three *denarii* each. There were three thousand seven hundred and fourteen pounds of gold, one shield made completely of gold, and fourteen thousand five hundred and fourteen gold coins with the image of Philip upon them."<sup>5</sup>

Each of the three denominations named by Livy offers a problem in definition and while it is tempting to digress for a discussion of what was meant by "gold coins with the image of Philip upon them" in the last mentioned of these quotations, or to discuss just what was intended by "Attic four-drachma

<sup>3</sup> Livy XXXIX, vii, 1. The booty in the triumph of G. Manlius Vulso resulted from his campaign against the Gauls in Asia Minor. Presumably, some of it must represent tribute paid them as well as hire received as mercenaries. The proportion of *cistophori* to Attic tetradrachms is slightly less than two to one.

<sup>4</sup> Livy XXXVII, lviii, 5. The triumph of Regillus commemorated his naval victory over the fleet of Antiochus III near Myonnesus as well as the capture of Phocæa. The proportion of *cistophori* to Attic tetradrachms is more than four to one.

<sup>5</sup> Through the kindness of Dr. John W. Beardslee of the New Brunswick Theological Seminary, I am informed that there is no indication of any serious corruption of the text for these five passages with the exception of the possible transposition of digits of the numerals in some of the manuscripts and in at least one case, the omission of a digit — a condition which is found in the citation all large numerals recorded in Roman histories.

pieces," we shall here concern ourselves with the *cistophori*. It is needful to point out that Livy did not have a clear conception of the difference between these two silver denominations since the description he gives for Attic "tetrachma" accurately described the *cistophori*.

Cistophori received the attention of numismatists as early as 1852 when Pinder published a volume<sup>6</sup> in which he recorded all that was known to him regarding them. Although he gave more attention to the succeeding Roman Imperial medallions of the Province of Asia than to their predecessors, much of the foundation which he laid has proved sound. In 1884, Imhoof-Blumer's *Die Münzen der Dynastie von Pergamon* appeared. In this, one of the best equipped German numismatists re-studied the material and the respect which his work commanded has brought an acceptance of his opinions without serious questioning. Imhoof-Blumer believed that the cistophori had their beginnings at Ephesus twenty to twenty-five years before 189.<sup>7</sup>

Perhaps the most significant piece of evidence to be considered in dating the cistophori is that the issues for three cities, Apollonis, Thyatira and Stratoniceia bear inscriptions reading BA. EY and the dates *beta*, *gamma* or *delta*. These are completed to read ΒΑΣΙΛΕΩΣ ΕΥΜΕΝΕΣ, years 2, 3, or 4. They are referred by Imhoof-Blumer to an era beginning at the Peace of Apameia, dating from 189, and are considered contemporary with the broad-flan Alexanders struck by many of the Asia Minor cities about that time. More recently, however, Louis Robert in his *Villes d'Asie Mineure* (p. 34 ff.) has

<sup>6</sup> Moritz Pinder, *Über die Cistophoren und über die kaiserlichen Silbermedaillens der römischen Provinz Asia*. Königlich preußische Akademie der Wissenschaften zu Berlin. Abhandlungen. Philol.-hist. Klasse. Berlin, 1856. 1855, p. 533-635, 8 pls.

<sup>7</sup> Fr. Imhoof-Blumer, *Die Münzen der Dynastie von Pergamon*, Berlin, 1884, (Aus den Abhandlungen der Königl. Preuss. Akademie der Wissenschaften zu Berlin vom Jahre 1884), p. 33.

presented cogent arguments supporting the position that these dates can refer only to the second, third and fourth years of the reign of Eumenes II, and therefore, must be read as the years 196/5, 195/4 and 194/3. If the new placement for the dated coins proposed by M. Robert is correct, the earlier one accepted by German scholars as well as by Head (H. N.<sup>2</sup>) must be changed. The entire question must therefore be reconsidered.

Since STPA occurs on coins dated 196–194/3, the name Stratoniceia cannot have been given to the city in honor of the wife of Eumenes II because their marriage did not occur until 188. The wife of Antiochus I was also named Stratoniceia – the city must have been named for the first Stratoniceia. Imhoof-Blumer's objection to the dating 196–194/3 is thus eliminated.

One very significant difficulty with Imhoof-Blumer's dating lay in the cistophoric type. If it originated at Ephesus as he believed, it would be natural to expect some reference to this circumstance in the type. Instead, we have actually a Pergamene type. The *cista mystica* is considered a Dionysiac symbol, although it may also have been associated with Demeter. Both these deities were worshipped at Pergamum whereas Artemis was the patroness of Ephesus. There are repeated Dionysiac references on the later Pergamene coins and descent from Dionysus is claimed by Attalus I. The reverse with its overgrown bow-case (and almost invisible bow) protected by two serpents is associated with Heracles and in this further connection with the Attalids is recognized. In all this, there is nothing that is Ephesian<sup>7a</sup>.

The geographical location of the cities which struck cistophori has marked significance, as Pinder's map shows. A com-

<sup>7a</sup> For these reasons G. van Hoorn "De origine cistophoren," *Mnemosyne. Bibliotheca Philologica Batavia* (XLII, 1915) concludes that the *cistophori* originated at Pergamum without, however, dating the beginning.

mon market is indicated by the fifteen or more cities which used these coins. Every one of them (except Tralles and Ephesus) was at some time within the duration of this coinage under Attalid control.

A comparison of the earliest issues for Pergamum and Ephesus shows that they cannot have been far apart in their beginnings, as Imhoof-Blumer believes. Apparently, his chief reason for placing the beginnings at Ephesus was the weight of the cistophori. The weight-system for the coinage which was used at Ephesus while it was in Ptolemaic possession was the so-called Phoenician, which was also used at Rhodes and by Egypt. The new cistophoric unit was therefore equivalent to a denomination that was familiar at Ephesus (and also wherever the Rhodian coinage circulated) and its weight would have gained it the acceptance of Ephesus (under Ptolemaic control). The cistophoric unit was equal to three Attic drachms, but since the cistophorus was divided into halves and quarters, it was considered by its originators a tetradrachm<sup>8</sup>.

As between Ephesus and Pergamum, it is to be expected that Pergamum would dominate a new coinage in which not only the type but the market for which the coinage was intended was Pergamene. It should be emphasized that this type was a radical departure from anything that had preceded it. The regal coinages, whether Attalid, Seleucid or Ptolemaic depicted a portrait of the overlord on the obverse, usually with the patron deity of the ruler or his house, or the symbol of that deity on the reverse along with the kingly name. The deliberate subordination of the monogram or initial letters of

<sup>8</sup> Very few of the hoards which are recorded show Ptolemaic coins alongside issues of Attic weight, and these hoards are confined to the Peloponnesus – this mixture has not yet been reported from Asia Minor, and exclusion of Attic-weight pieces is also true of the few hoards of cistophori known to us. Syrian hoards so far reported exclude cistophoric pieces. There they were thought less desirable than Attic-weight coins.

the name of the city involved in each respective issue of the cistophori, can hardly be without significance. This break with traditional forms for the new cistophoric coinage must have been intentional. I find nothing that can be urged as a prototype. The only concession to the procedure found on other Greek coins is in the subsidiary symbols which mark the earliest output of cistophori and the conventionalized *aphlaston* (if that is what is intended) which decorates the bow-case on the reverse. Perhaps this *aphlaston* is as purely decoration as a palmette—which may also have been what was intended. What is the reason for the absence of any prominent inscription? The abbreviated ethnic, magistrate's initials and even the subsidiary symbols are minimized.

The statements made by Livy have been much discussed by numismatic scholars as well as by the historians, and the explanations have been many and varied. Perhaps the chief cause for this is to be found in the huge numbers of cistophori which figure in the four triumphs recorded. If the coinage began shortly before 200 (215–210) at Ephesus, how can we account for the rapid growth in popularity for this strange type, especially when we recall that Ephesus was in possession of Antiochus III between 197 and 190? Some writers accept the statements of Livy literally. Others, like Imhoof-Blumer and Regling, believe that these are the equivalents of sums reckoned in a denomination that had become popular between the time of the triumphs and the time Livy was recording them. There is also a tendency on the part of some to consider Livy's figures exaggerated.

One condition which deserves our attention has been noted by von Fritze.<sup>9</sup> Imhoof-Blumer has observed a retrogression in style between the earliest cistophori of Pergamum and

<sup>9</sup> Hans von Fritze, *Die Münzen von Pergamon*, Berlin, 1910 (Aus dem Anhang zu den Abhandlungen der Königl. Preuss. Akademie der Wissenschaften vom Jahre 1910), p. 17.



Ephesus and the dated issues (Apollonis, Stratoniceia and Thyatira). Von Fritze waves this aside as due to the unaccustomed hand of the engraver and considers it of little significance. A comparison of the respective coins in Mr. Newell's collection does not bear out this judgment. Applying the criteria formulated by Imhoof-Blumer which seem elsewhere to have had the approval of von Fritze,<sup>10</sup> these pieces, illustrated on PLATE VII, show convincing differences. The Apollonis coin is smaller and thicker than the earliest Pergamene cistophorus, the *cista* is notably smaller, while the wreath is coarse and in higher relief. This shrinkage in size of the flan and scale of the type is a consistent development both before and after these dated issues. Aside from the inscription BA. EY and the date, the reverse shows higher relief, while the ethnic is differently placed. Much the same is true of the Thyatira piece of the year A. On the obverse the relief is also coarse and bold, the *cista* is small and the wreath has eight leaf-clusters as compared with sixteen for the earliest Pergamene coins. The reverse has a fulmen between the heads of the serpents as well as a human head to right in the right field. One must decide that Von Fritze's conclusion is unwarranted by the evidence. The interval between the beginnings and these dated issues is estimated by Imhoof-Blumer as 21 to 26 years.<sup>11</sup>

But there is another condition which was not brought into consideration by either Imhoof-Blumer or Von Fritze. Although the cistophori of Sardes are much less common than those of Pergamum and Ephesus, the earliest of them closely resemble those of these two cities. All three have the broad flans characteristic of the earliest issues. The obverse wreaths are in low relief and show many leaf-clusters. The *cista* although not quite so large as at Pergamum, is of the same

<sup>10</sup> *Nomisma*, V, 1910, pp. 20ff.

<sup>11</sup> Imhoof-Blumer, *op. cit.*, p. 33.

proportions. The reverses are so close as to seem copied one from the other. There is little room for doubt that they are contemporaneous, or nearly so (See PLATE VII, 1, 2, 3).

It will be remembered that Attalus I regained much lost territory in a swift campaign immediately after the death of Antiochus Hierax (228 B. C.), only to lose the greater part of this gain to Achaeus in or about 220. Sardes was made the headquarters of Achaeus and remained in Seleucid possession until 190. It would be preposterous to suppose that cistophori could have been struck at Sardes while it was in Seleucid possession. Nor can we believe that the beginning of the coinage of cistophori at Sardes was postponed until after 190 (apparently the earliest date Sardes was again Pergamene) without rejecting both Livy's statements and ignoring the style on the dated coins. Sardes must have struck the early cistophori bearing its monogram between 228 and its recapture by Achaeus, and with this conclusion we must accept that Pergamum and Ephesus as well began their coinage of this type at approximately the same time.

The consequences of this conclusion are far-reaching, for comparison shows that the earliest issues of Apameia and Tralles also share the characteristics of the earliest cistophori of Pergamum, Sardes and Ephesus. They have the same thin flans, low relief and broad scale for the cista we have been observing. We must therefore seek an explanation other than that outlined by Imhoof-Blumer for the participation of Apameia and for Tralles as well, and since Tralles was located within a very short distance from Ephesus, any explanation must comprehend the inclusion of both.

There is general acquiescence that Ephesus was Ptolemaic from 245 to 197. Imhoof-Blumer's placing of the beginnings of the cistophori at Ephesus would hardly be affected by moving the date back, whether merely two years or considerably

more. When his monograph was written (1884), the knowledge of the history of Asia Minor was much less than it now is. In the interval, Pergamum and several other important cities



have been excavated with a consequent addition to the epigraphical evidence. Nor does the metrological reason he gives for placing these beginnings at Ephesus carry the weight it has been given by scholars who have echoed his statement

without testing it. In the light of what has preceded, we must look for a period in which five of the chief cities of Asia Minor agreed to issue an entirely new and strange coinage, differing in type and size from any then in use, and with a weight-system to which only one of them (possibly two, if we include Tralles) had been accustomed. It is obvious that the introduction of the cistophori at Ephesus at this time could not have taken place without the sanction of Egypt. The geographical situation of these five cities must also be given consideration. Tralles lies a short distance to the southeast of Ephesus on the great highway at the far end of which is Tarsus. This highroad from Tarsus and the East branches near Apameia and the southern branch descends the valley of the Maeander to Ephesus. The northern branch runs through Sardes to Thyatira and thence to Pergamum. Head's statement bears quoting. Apameia "became a commercial junction where goods arriving by caravan routes from the east were packed in chests to be forwarded to the various seaports, Ephesus, Pergamum, etc. Hence, its nickname, ... the chest."<sup>12</sup>

Attalus I, after having been shut up in Pergamum for a considerable period by Hierax and after victories over Hierax and the Gauls, as Polybius tells us and as inscriptions found at Pergamum confirm, took possession of much of the territory previously occupied by Hierax, and this must have certainly included Sardes and Apameia. The prospects after this took place must have seemed very bright, the more so in that the assassination of Seleucus III which followed so soon afterwards and the involvement of the youthful Antiochus III with Egypt, seemed to give Attalus promise of freedom from Seleucid attack for some time to come. Conversely, the successes of Attalus must have made him desirable as an ally

<sup>12</sup> *Historia Numorum*<sup>2</sup>, p. 666.

against the Seleucids, and other than the underdog he had seemed up to this time. Egypt would hardly have refused to permit Ephesus to combine with him in the initiation of a coinage which differed in its characteristics from the coinage of the Seleucids and which must have been intended to supplant that currency. There could hardly have been a better time for launching an economic offensive — the introduction of a coinage such as the cistophori.

Acceptance of the idea that Apameia and Sardes were included at the very beginning of the cistophoric coinage introduces an element which has not been given due importance hitherto. One might defend with plausibility that the strangeness of type and denomination were at first a premeditated effort to keep the circulation of these coins restricted to a limited area. Since Apameia was a center to which all the roads of central Asia Minor led and with Attalus in control of one of the two roads to the Western sea-coast, we deduce that his intention — one which with the concurrence of Ephesus and Egypt, he realized — was the initiation of a coinage which would be accepted in the terminal cities west of Apameia. Decades later, it did spread eastward too, as the coinage of cistophori at Synnada and at least one other town to be discussed later, show.

It is therefore not at all surprising to find Von Fritze presenting the idea that another great change took place in the Pergamene coinage at just this time. This change consisted in a modification of the reverse of the Attic tetradrachms struck (as were previous issues) in the name of Philetaerus. Instead of leaving the name of the founder of the dynasty behind the seated figure of Athena, it is now moved to the left field, and the seated goddess extends her right arm to crown it. The similarity to the reverse types of Lysimachus is at once apparent. Whether this change was coincident with the intro-

duction of the cistophori be accepted or not, the coinage of Attic tetradrachms by Pergamum continued. The regal coinage would have been used for the Greek cities of the coast and especially those to the northwest where the posthumous Lysimachus tetradrachms had long been popular. Rhodes apparently employed this practice of coining on two weight-systems after 188,<sup>13</sup> and possibly before that date.<sup>14</sup> Pergamene tetradrachms of the Attic weight do occur in hoards found in Syria – the cistophori as has been said are not found there,<sup>15</sup> or at least have not as yet been found in any recorded Syrian hoard. Hence, one judges that at first the cistophori were more strictly local than the tetradrachms with the name of Philetaerus. From the number of dies listed by Von Fritze,<sup>16</sup> it might be reasoned that the coinage of regal tetradrachms was never great (sixty-three dies for forty-four years of reign of Attalus I).

The present discussion affords occasion for adding another to the list of cities which struck cistophori (PLATE VII, 4). The attribution of this coin to Hierapolis in Phrygia is Mr. Newell's – he added to his ticket for the piece "unpublished". It must date after the Province of Asia was set up in 133 B. C. at the same time some of the other smaller cities began striking cistophori.<sup>17</sup> The output must have been small, and can hardly have lasted for long. Hierapolis, the Sacred City, we are informed in the introduction to the British Museum Catalogue for Phrygia, "owed its sanctity to its hot

<sup>13</sup> *B. M. C., Caria*, Intro., p. cix. There may have been an interval between the early tetradrachms with the portrait of Philetaerus and those we are considering – that interval being the years between the downfall of Hierax and the victories of Achaeus.

<sup>14</sup> The new cistophoric coinage is definitely in opposition to that of the Seleucids.

<sup>15</sup> Von Fritze, *loc. cit.*, p. 13.

<sup>16</sup> Cf. Rostovtzeff, *Social and Economic History of the Hellenistic World*, Vol. 2, p. 657.

<sup>17</sup> Kurt Regling, "Ein Kistophorenschatz aus der Provinz Brussa," *Frankfurter Münzzeitung*, 1932, pp. 506–510, (particularly p. 507).

springs and mysterious Chaeroneion, the dark entrance to the underworld from the orifice of which a mephitic vapour rose into the outer air.”

SYDNEY P. NOE

CISTOPHORI ILLUSTRATED ON PLATE VII

- |               |               |
|---------------|---------------|
| 1. Pergamum   | 4. Hieropolis |
| 2. Ephesus    | 5. Apameia    |
| 3. Sardis     | 6. Thyatira   |
| 7. Apollonis. |               |





## THE MINT OF ASCALON UNDER THE SELEUCIDS (SEE PLATES VIII-IX)

Derceto, a goddess akin to the Syrian Atargatis and to Aphrodite, had her most ancient temple in Ascalon.<sup>1</sup> Her myth included tales about doves and accordingly we find a dove used as a distinguishing mark or differential on the royal Ascalonite silver coinage. Similarly, there is numismatic evidence that the dove was associated with Aphrodite in her venerable cults at Paphus in Cyprus and in the island of Cythera: Fourth Century and later coins having as complementary obverse and reverse types, a head of Aphrodite and a dove.<sup>2</sup> Derceto herself or her latter-day substitute, the Tyche of the city, appeared on coins of Ascalon, as a free municipality under the Roman empire, standing on a prow with a dove at her side and holding the naval emblem, an aphlaston.<sup>3</sup> This device, suitable for a seaport, was employed by certain Seleucid kings as a reverse type or as symbol.

Just as the club of Heracles combined with the city-monogram was an unmistakable mint mark of Tyre on Seleucid silver coins, so the dove of Derceto associated with ΑΣ on similar issues of the same kings denoted the mint of Ascalon. As we shall see, there are rare instances when the dove occurred alone and ΑΣ or ΑΣΚ without the bird. But ΑΣΚ in the exergue of tetradrachms of Antiochus II and on bronze coins of Tryphon with the spiked helmet reverse is a monetary

<sup>1</sup> Herodotus, I, 105.

<sup>2</sup> For Paphus, B. M. C., *Cyprus*, Pl. VIII, 9 and Head, *Historia Numorum*<sup>2</sup>, p. 741; for Cythera, Head, *Historia Numorum*<sup>2</sup>, p. 436. For doves depicted on the temple of Aphrodite at Paphus, B. M. C., *Cyprus*, Pl. XVII, 4, 5, 6, 8, 9, 10.

<sup>3</sup> B. M. C., *Palestine*, Pl. XIII, 6, 8, 9, 10, 13, 14.

magistrate's signature. The former have been assigned to Magnesia on the Maeander, the latter to Antioch.<sup>4</sup>

We are fully justified, however, in attributing Tryphon's dated bronze coins with standing Zeus on the reverse to Ascalon. In the first place, the mint name is once written ΑΣΚΑ. Secondly, the Zeus figure was patterned after that on the dated bronze issue of Antiochus IV with ΑΣ, which belongs to a whole series of bronze coins of this king bearing city names and local types, several of which have the same standing Zeus. Again, there can be no doubt that Ascalon was a mint of Antiochus IV, witness his bronze pieces with dove as reverse type.

The earliest known coin for Ascalon, which was attributed by Newell, a silver drachm of Antiochus III with Apollo on the omphalos as reverse type, bore a dove as mint mark and above it an Α, which probably served as further identification of the mint place (PLATE VIII, 1).

The next issues were bronze coins of Antiochus IV, who included Ascalon among the many cities of his realm on whose coinages he popularized his favorite deity, Olympian Zeus,<sup>5</sup> beginning in the year 169 (PLATE VIII, 2 and 3). The other cities using as reverse type the standing facing Zeus with head to left and right arm raised with wreath in hand, inscribed their own ethnics in full whereas at Ascalon the coinage was a royal one in the king's name, with the initials of the mint, ΑΣ, and were dated by regnal years.

The fact that Alexander I Balas followed Antiochus IV's practice of dating certain Ascalonite bronze coins enabled early numismatists to attribute to the first Alexander small

<sup>4</sup> E. T. Newell, *Western Seleucid Mints*, p. 286, no. 1476, and his classification of Tryphon's coins under Antioch in his trays.

<sup>5</sup> Babelon, *Rois de Syrie*, Pl. XIV; Bevan, *House of Seleucus*, II, pp. 150f.; Newell, *Seleucid Mint of Antioch*, pp. 23-24.

bronzes with an aphiastion as reverse type bearing the name of king Alexander, a date and initials of the mint, **ACK** (PLATE VIII, 5). The portrait alone is not very individual. Coins of this class have long been known. In 1865 and 1866 two examples were acquired by de Moltheim together with about thirty other Ascalonite pieces from the ruined site of the city.<sup>6</sup>

Under Tryphon for the first time, the mint began to issue silver coins of the Phoenician category, that is, with an eagle as reverse type and of Phoenician weight (PLATE VIII, 7). Here the eagle stands to left on a thunderbolt, and the aphiastion, which had formed the reverse type of Balas' coinage (PLATE VIII, 5) was used as a symbol in the left field. On this silver didrachm the mint was indicated by **AΣ** as on all subsequent Phoenician issues. The eagle was depicted as plump and with neck erect and with no 'finicky' stylization of the feathers. It closely resembles the eagle on the next silver coinages, those of Alexander Zabinas and Antiochus VIII (PLATES VIII, 11 and IX, 12).

As reverse type for his bronze coinage, Tryphon copied the standing Zeus of Antiochus IV, placing the date and mint name similarly, downward in the left field (PLATE VIII, 8).

Demetrius II introduced the palm branch behind the eagle on the silver issues (PLATE VIII, 9) and in the reign of Alexander Zabinas another mint differential was added, a dove standing to l. below **AΣ** (PLATE VIII, 10, 11). These devices now became standard differentia on all silver until Antiochus VIII supplemented them with the abbreviations **IEP** and **AΣY**, for **ιερός (καί) ἀσύλῳ**, "sacred and inviolable" (PLATE IX, 16, 17 and 22).

<sup>6</sup> Imhoof-Blumer, *Zeit. f. Num.* (XIII), 1885, pp. 140-141, mentioned de Moltheim's early acquisitions, also that de Saulcy, *Mémoires sur les Monnaies datées des Séleucides*, Paris, 1871, p. 27, described a coin of Balas with **AΣK** and date **ΕΞΡ** attributing it to Ascalon.

The eagle always stands on a thunderbolt as at Ake-Ptolemais, except on the tetradrachm of Demetrius II where the bird stands on a prow of a galley as at Tyre, and occasionally at Sidon.<sup>7</sup> There is a border of dots on all obverses except that of Demetrius' tetradrachm, which has a fillet border. The positions, to l. or r. of the eagle, of mint letters, symbol and date are as follows:

	To Left	To Right
Tryphon		Date ΑΣ
Demetrius II		ΑΣ Date
Alexander II	ΑΣ Dove	Date
Cleopatra and Antiochus VIII	„	„
Antiochus VIII	„	„
Antiochus IX	„	„

## CATALOGUE

ANTIOCHUS III, 223-187 B.C.

*Undated Attic Drachm*

1. Head of Antiochus III to r. with diadem

*Rev.* ΒΑΣΙΛΕΩΣ ANTIOXOY Apollo seated to l. on omphalos; to l., Α above dove standing to r. with wings closed; to r., Α; ground line.

Æ. 19 mm. 4.26 gr. Newell, *Western Seleucid Mints*, p. 209, Pl. XLVI, 15.

PLATE VIII, 1.

<sup>7</sup> Antiochus VIII, *Zeit. f. Num.* (1912), Pl. V, 11 and Antiochus IX, Babelon, *Rois de Syrie*, Pl. XXVI, 2.

## ANTIOCHUS IV, 175-164 B.C.

*Dated Bronze Coin, year ΔMP (144 = 169/8 B.C.)*

2. Head of Antiochus IV radiate to r., with diadem; border of dots.

*Rev.* ΒΑΣΙΛΕΩΣ ANTIOXOY Zeus standing facing, head to l.; upper body bare, lower draped; r. arm raised with wreath in hand; ground line; to l. ΑΣΔMP downward, and to l. of mint and date N.; border of dots.

Æ. 19 mm. 5.20 gr. Edge bevelled. Paris. Babelon, *Rois de Syrie*, no. 652.

PLATE VIII, 2.

*Dated Bronze Coin, year EMP (145 = 168/7 B.C.)*

3. Similar.

*Rev.* Similar, but with ΑΣ and date EMP.

Æ. 22 mm. 8.20 gr. Paris. *Rois de Syrie*, no. 653, Pl. XIV, 13.

PLATE VIII, 3.

*Undated Bronze Coin without Ethnic*

4. Similar.

*Rev.* Β(ασιλέως) Α(ντιόχου) Dove standing to l., wings closed; to l., ✠; border of dots.

a) Æ. 17 mm. 3.93 gr. London.

PLATE VIII, 4.

b) Æ. 16 mm. 3.80 gr. Paris. Babelon, *Rois de Syrie*, no. 579, Pl. XIII, 13

## ALEXANDER I BALAS, 150-145 B.C.

*Dated Bronze Coin, year ЄΞΡ (165 = 148/7 B.C.)*

5. Head of Alexander I to r. with diadem; border of dots.

*Rev.* ΒΑCΙΑ l. upward, ΑΛΕΞΑ r. upward. Aphlaston; above king's title, ЄΞΡ upward; below king's name, ΑCΚ upward; border of dots.

a) Æ. 15 mm. 2.21 gr. London. G. Macdonald, "Seltene und Inedierete Münzen", *Zeit. f. Num.* (XXIX), 1912, p. 97, no. 20, Pl. IV, 19.

PLATE VIII, 5.

b) Similar but with year not decipherable.

Æ. 14 mm. 1.82 gr. London. *Ibid.*, no. 21.

c) Similar.

Æ. 13 mm. *Catalogue de la Collection H. Walcher de Molthein*, 1895, p. 270, Pl. XXX, 3184 (rev. only).

*Dated Bronze Coin, year ЄΞΡ (166 = 147/6 B.C.)*

6. Similar.

*Rev.* Similar; date ЄΞΡ, *ibid.*, Pl. XXX, 3185.

*Undated Bronze Coin without Ethnic.*

7. Similar.

*Rev.* Β(ασιλέως) Α(λεξάνδρου) Dove standing to l., wings raised in horizontal position; border of dots.

Æ. 15 mm. 2.20 gr. London. The head suggests that of Alexander Balas on No. 5. PLATE VIII, 6.

## TRYPHON, 142/1-139/8 B.C.

*Dated Phoenician Didrachm, year ΛΓ, (3 = 170/39 B.C.)*

8. Head of Tryphon to r. with diadem; border of dots.

*Rev.* ΒΑΣΙΛΕΩΣ r. downward, ΤΡΥΦΩΝΟΣ ΑΥΤΟΚΡΑΤΟΡΟΣ in two lines on l. upward. Eagle standing to l. on thunderbolt, wings closed; l., aphlaston above Σ; r., Ε above ΑΣ.

Æ. 21 mm. 6.27 gr. London. B.M.C., *Syria*, p. 68, no. 1, Pl. XXVIII, 9. PLATE VIII, 7.

*Dated Bronze Coin, year ΛΔ (4 = 139/8 B.C.)*

9. Similar.

*Rev.* ΒΑΣΙΛΕΩΣ r. downward, ΤΡΥΦΩΝΟΣ ΑΥΤΟΚΡΑΤΟΡΟΣ in two lines l. downward; Zeus standing facing as on Antiochus IV's bronze coins; to l. downward, ΛΔΑΣΚ; border of dots.

a) Æ. 21 mm. 4.35 gr. London, B.M.C., *Syria*, p. 69, no. 16, Pl. XXVIII, 10. PLATE VIII, 8.

b) Æ. 21 mm. 4.35 gr. with ΛΔΑΣΚΑ. Paris. Babelon, *Rois de Syrie*, no. 1058.

c) Æ. 22 mm. 6.25 gr. with ΑΣΚΑΛΔ. Paris. *Ibid.*, no. 1059, Pl. XXI, 6.

On the heavier Paris example c), the inscription ΑΣΚΑΛΔ is clear; on a), the king's name and title are legible; the date comes first and the first three letters ΑΣΚ are visible on the cast. The obverses of a) in London and b) in Paris seem to be from the same die, while the reverses appear to be from different dies.

## ANTIOCHUS VII (?), 139-129 B.C.

*Undated Bronze Coin without Ethnic*

10. Macedonian helmet r. with crest and cheek-pieces; border of dots.

*Rev.* ΒΑΣΙΛΕΩΣ ANTIOXOY Aphlaston.

a) Æ. 14 mm. 1.74 gr. London. Macdonald, *Zeit. f. Num.* XXIX (1912), p. 99, Pl. V, 15.

- b)  $\text{Æ}$ . 14 mm. 1.81 gr. A.N.S., Newell Bequest, acquired from Prof. Mitchell's collection, Jerusalem.  
 c)  $\text{Æ}$ . 13 mm. 1.80 gr. A.N.S., Newell. Type and inscription worn.  
 d)  $\text{Æ}$ . 12 mm. 1.45 gr. Paris. Babelon, *Rois de Syrie*, p. 189, Pl. XXV, 16.

Macdonald made the attribution to Ascalon citing three examples in the British Museum, two of which were from the Hamburger collection, and the Paris specimen catalogued under Antiochus VIII. He preferred Antiochus VII comparing a small bronze of Tyre with Macedonian helmet and palm tree, inscribed  $\text{ΒΑΣΙ-ΔΗΜ}$ , published in *Cat. de Moltthein*, p. 251, no. 3001, under Demetrius II.

#### DEMETRIUS II, SECOND REIGN, 129-125 B.C.

*Dated Phoenician Tetradrachm, year ΣΠΡ (186 = 127/6 B.C.)*

11. Head of Demetrius bearded to r., with diadem; fillet border.

*Rev.*  $\text{ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ}$  Eagle standing to l. on prow of a galley; long palm branch in background; l.,  $\text{ΙΕ}$ ; r.,  $\text{ΑΣ}$  above  $\Sigma\text{ΠΡ}$ ; border of dots.

$\text{Æ}$ . 28 mm. 14.65 gr. *Coll. Jameson*, Pl. LXXXVIII, 1736, from Bourgey Sale Cat., Dec., 1906, no. 90. PLATE VIII, 9.

#### ALEXANDER II ZABINAS, 128-123 B.C.

*Dated Phoenician Didrachm, year ΙΠΡ (187 = 126/5 B.C.)*

12. Head of Alexander II to r. with diadem; border of dots.

*Rev.*  $\text{ΒΑΣΙΛΕΩΣ ΑΛΕΞΑΝΔΡΟΥ}$  Eagle standing to l. on thunderbolt; long palm branch in background; l.,  $\text{ΑΣ}$  above a dove standing to l., wings raised in horizontal position; r.,  $\text{ΙΠΡ}$ ; between eagle's legs,  $\text{Ϝ}$ ; border of dots.

$\text{Æ}$ . 23 mm. 6.82 gr. Berlin. Babelon, *Rois de Syrie*, p. cl, Fig. 35; Imhoof-Blumer, *Monnaies Grecques*, p. 436, no. 114, where the Seleucid year is wrongly given as 188, = Cat. Gréau, Paris, 1887, Pl. V, 2404.

PLATE VIII, 10.

*Dated Phoenician Drachm, year ΘΠΡ (189 = 124/3 B.C.)*

13. Similar.

*Rev.* Similar, but with aphlaston (?) in l. field; r.,  $\Theta\text{ΠΡ}$ .

$\text{Æ}$ . 15 mm. 3.40 gr. London, B.M.C., *Syria*, p. 81, no. 1, Pl. XXII, 1.

PLATE VIII, 11.

## CLEOPATRA THEA AND ANTIOCHUS VIII, 125-121 B.C.

*Dated Phoenician Tetradrachm, year AQP (191 = 122/1 B.C.)*

14. Head of Cleopatra to r. wearing stephane, diadem and veil, conjoined with the head of Antiochus VIII diademed.

*Rev.* ΒΑΣΙΛΙΣΣΗΣ ΚΛΕΟΠΑΤΡΑΣ on r., ΒΑΣΙΛΕΩΣ ΑΝΤΙΟΧΟΥ on l. Eagle with dove and ΑΣ; r., ΔQP; between eagle's legs Α; border of dots.

Æ. mm. gr. Berlin. J. Friedlaender, "Die Erwerbungen des Kgl. Münzkabinets vom Januar 1877 bis März 1878," *Zeit. f. Num.*, VI (1879), p. 7; not fully described, and again mentioned briefly by Babelon, *Rois de Syrie*, p. cliii.

*Dated Phoenician Didrachm, year BQP (192 = 121/0 B.C.)*

15. Similar.

*Rev.* Similar; r., BQP; between eagle's legs ΑΣ.

Friedlaender, *ibid.*, p. 7.

## ANTIOCHUS VIII, 121-96 B.C.

*Dated Phoenician Tetradrachm, year ΓQP (193 = 120/119 B.C.)*

16. Bust of Antiochus VIII to r. draped, with diadem; border of dots.

*Rev.* ΒΑΣΙΛΕΩΣ ΑΝΤΙΟΧΟΥ Similar; l., ΑΣ above dove standing to l.; r., ΓQP; between eagle's legs Η; border of dots.

Æ. 28 mm. 14.11 gr. London, B.M.C., *Syria*, p. 88, no. 1, Pl. XXIII, 8.  
PLATE IX, 12.

*Dated Phoenician Tetradrachm, year SQP, (196 = 117/6 B.C.)*

17. Similar.

*Rev.* Similar; r., SQP; below dove, ΝΚ.

Æ. 26 mm. 13.75 gr. A.N.S., Newell.

PLATE IX, 13.

*Dated Phoenician Tetradrachm, year IdB (197 = 116/5 B.C.)*

18. Similar.

*Rev.* Similar; r., IQP; below dove, Ξ.

Æ. 26 mm. 13.04 gr. London.

PLATE IX, 14.

## ANTIOCHUS IX, 114-95 B.C.

*Dated Phoenician Didrachm, year Σ, (200 = 113/2 B.C.)*

19. Bust of Antiochus IX to r. draped, with diadem; border of dots.

*Rev.* ΒΑΣΙΛΕΩΣ ΑΝΤΙΟΧΟΥ on r., ΦΙΛΟΠΑΤΟΡΟΣ on l.

Similar; r., Σ; l., below dove, Π; border of dots.

Æ. 23 mm. 6.25 gr. Berlin. Macdonald, *Zeit. f. Num.*, XXIX (1912), p. 104;



Imhoof-Blumer, *Monnaies Grecques*, p. 436, no. 118, and *Choix de Monnaies Grecques de la Collection de F. Imhoof-Blumer*, Paris, 1883, Pl. VII, 222.

PLATE IX, 15.

Macdonald noted the unexampled use of the King's surname, Philopator, on Phoenician coinage, the purpose being to distinguish Antiochus IX's issue from the preceding ones of Antiochus VIII. However, Antiochus V employed his surname, Eupator, on Phoenician tetradrachms struck at Ake-Ptolemais, *Zeit. f. Num.* (1912), Pl. IV, 16, and Brett, "Seleucid Coins of Ake-Ptolemais," *A. N. S. Museum Notes I*, Pl. IX, 17.

ANTIOCHUS VIII, 121-96 B.C.

*Dated Phoenician Tetradrachm, year LAΣ (201 = 112/1 B.C.)*

20. Similar to No. 18.

*Rev.* ΒΑΣΙΛΕΩΣ ANTIOXOY Similar to No. 18; l., AΣ and IEP in two lines below which, dove above AΣ; r., LAΣ; between eagle's legs, †.

Æ. 26 mm. 13.90 gr. Paris. Babelon, *Rois de Syrie*, no. 1402, Pl. XXIV, 17.

PLATE IX, 16.

*Dated Phoenician Didrachm, year LBΣ (202 = 111/110 B.C.)*

21. Similar.

*Rev.* Similar; l., AΣ and IEP in two lines below which, dove; r., AΣY and LBΣ in two lines; between eagle's legs, M.

Æ. 22 mm. 6.86 gr. London. B.M.C., *Syria*, p. 91, no. 3, Pl. XXIV, 8.

PLATE IX, 17.

*Dated Phoenician Tetradrachm, year; r., I [Σ]. (207 = 106/5 B.C.)*

22. Similar to No. 20.

*Rev.* Similar to No. 20; l., AΣ above IEP and AΣY in two lines below which, dove l. above aphlaston; between eagle's legs, ♂; r., I [Σ].

Æ. 24 mm. 13.85 gr. (pierced). Seyrig Coll., from a photograph kindly sent by M. Seyrig.

PLATE IX, 22.

On Seleucid coins of Ascalon, as of Sidon, the aphlaston, a maritime symbol, sometimes occurs as a secondary mint indication. It is interesting to observe that on a dated auto-

nomous silver coin of  $\text{LB}\Sigma$  (202 = 111/110 B. C.) B. M. C., *Palestine*, Pl. XI, 16, Ascalon recorded her title,  $\text{IEPA}\Sigma$ , which appeared first in the Seleucid series on No. 20, of year  $\text{LA}\Sigma$  (201 = 112/1 B. C.).

It was Antiochus III who settled permanently the century-old dispute between the Seleucids and Ptolemies over the possession of Palestine and Phoenicia by inflicting a paralyzing defeat on Ptolemy V's forces at Panion in 198. Probably soon afterward he struck the first Seleucid coin at Ascalon in southernmost Palestine. The issuance by Antiochus of a silver coin of Attic weight and Antiochene reverse type at a Palestinian mint is not surprising since he had much earlier inaugurated this kind of coinage at Tyre in Phoenicia.<sup>8</sup>

Our catalogue comprises the Ascalonite issues of ten different rulers, counting Cleopatra, who however struck only in conjunction with Antiochus VIII. It contains the published examples known to the writer when the material was assembled some years ago, also those specimens in the London and Paris cabinets of which casts were obtained at that time, and a few pieces in the Museum of the American Numismatic Society. Although all these coins are very rare, more examples probably exist in other public or private collections.

The dynastic struggle for control of the Seleucid kingdom waged by the half-brothers, Antiochus VIII and IX, from 113 B. C. is reflected by the coins of Ascalon as well as of Antioch and certain other mints.<sup>9</sup> From the dated coin, No. 19, we see that Antiochus IX captured Ascalon in 113/2 and from No. 20 we learn that Antiochus VIII recovered the city in the following year, 112/1, and recognized it as holy and inviolable.

<sup>8</sup> E. T. Newell, *First Seleucid Coinage of Tyre and Western Seleucid Mints*, pp. 200f.

<sup>9</sup> E. T. Newell, *Late Seleucid Mints in Ake-Ptolemais and Damascus* (N. N. M., No. 84) and *Seleucid Mint of Antioch*.

In the table here appended the years of rule of Cleopatra and her sons, the legitimate king, Antiochus VIII and his rival, Antiochus IX, derived from the dated coins, are compared with the periods when they reigned at Antioch.<sup>10</sup>

Dated Silver Coins of Ascalon	B. C.	Reign in Antioch	B. C.
Cleopatra and Antiochus VIII	122-121 121-120	Joint Reign	122-120
Antiochus VIII	120-119 117-116 116-115	First Reign	121-113
Antiochus IX	113-112	First Reign	113-112
Antiochus VIII	112-111	Second Reign	112
Antiochus IX		Second Reign	early in 111
Antiochus VIII	111-110 or (?) 109-108	Third Reign	111-109
Antiochus IX		Third Reign	109-108
Antiochus VIII	106-105	Fourth Reign	108-96
Antiochus IX		Fourth Reign	96-95

The reading of the date on Antiochus VIII's didrachm, No. 21 (PLATE IX, 17) as  $\Lambda\Delta\Sigma$ , (year 204 = 109/8 B. C.) as in B. M. C., *Syria*, p. 91, seems to me doubtful. Upon comparing the small, poorly cut letter supposed to be a  $\Delta$  with the larger B in  $\text{ΒΑΣΙΛΕΩΣ}$ , there appears to me to be enough similarity between the two to warrant reading the date as  $\Lambda\text{Β}\Sigma$  (202 = 111/110 B. C.).

<sup>10</sup> E. T. Newell, *Seleucid Mint of Antioch*.

The following dates on unpublished tetradrachms of Antiochus VIII are cited by Bellinger<sup>11</sup> as communicated to him by Seyrig from coins seen in the Museum of Antiquities, Jerusalem.

1. Antiochus VIII, year ΘϞΡ, 199 = 114/3 B. C.
2. „ „ „ , year ΛΕΣ, 205 = 108/7 B. C.
3. „ „ „ , year ΙΣ, 207 = 106/5 B. C.
4. „ „ „ , year ΗΣ, 208 = 105/4 B. C.

No. 1 was struck at Ascalon during Antiochus' First Reign in Antioch, 121-113, Nos. 2-4 during his Fourth reign there, 108-96.

Dated autonomous tetradrachms of Ascalon with Ptolemaic portraits have sometimes been mistaken for Seleucid issues, e. g., Babelon, *Rois de Syrie*, No. 1403, Pl. XXIV, 18; Macdonald, *Zeit. f. Num.*, 1912, No. 38, Pl. V, 12. For the series with Ptolemaic heads, cf. Svoronos, *Ptolemies*, I, p. 505' ff.; B. M. C., *Palestine*, p. lvi, Pl. XII, 1-3; Brett, "A New Cleopatra Tetradrachm of Ascalon," *A. J. A.*, XLI, 1937, pp. 452f., where the Ptolemaic portrait tetradrachms are shown to have been dated from Ascalon's year of independence, 103 B. C., as de Saulcy had suggested so long ago in *Rev. Num.*, 1874-1877, pp. 124f.

AGNES BALDWIN BRETT

<sup>11</sup> A. R. Bellinger, "The End of the Seleucids," *Transactions of The Connecticut Academy of Arts and Sciences*, 38, June 1949, pp. 89-90.

## ATHENA ΑΛΚΙΔΗΜΟΣ OF PELLA

(SEE PLATES X–XII)

The delightful, archaistic Athena, who appears on certain royal Greek coins, has usually been designated by numismatists as Athena Promachos or Athena Alkis. Or else she has been described non-committally as the fighting Athena, *Pallas combattant*, *die angreifende* or *kämpfende Athena* or *Athena foudroyant* (when brandishing a thunderbolt). Her true name, Alkidemos, “Defender or Protector of the People”, which is unique as a divine title, is little known and her full significance as a regal coin type not widely appreciated.

First, as to the surname, Ἀλκίδημος. Although the correct form of the title under which Athena was worshipped at Pella was recovered from the corrupt text of Livy by a scholar of the sixteenth century, Gaebler<sup>1</sup> seems to have been the first to bring it to the attention of numismatists. Kreissig’s edition of 1849<sup>2</sup> incorporated the suggested emendation of Livy, Book XLII, 51, made by Turnebus (1512–1565) as Gaebler informs us in a note on the Athena type on coins of Antigonus Gonatas. The sentence, “Ipsecentum hostiis sacrificio regaliter Minervae quam vocant *Alcidem confecto*” was emended to “Minervae quam vocant *Alcidemon facto*.”

Livy is relating how king Perseus and his advisers held a council to discuss the outlook for war or peace with Rome, and states, “This conference was held at Pella, in the ancient palace of the Macedonians.” He then recounts the decision of

<sup>1</sup> Gaebler, *Antike Münzen Nordgriechenlands*, III<sup>2</sup>, 1935, p. 94, note to No. 4.

<sup>2</sup> Annotationes ad T. Livii libros, XLI–XLV, Meissen, 1849, p. 56.

Perseus. " 'Let us, then, said Perseus, wage war, since this seems best, with the kindly help of the gods', and sending despatches to his officers he drew all of his forces together at Citium, a city of Macedonia. He himself offered a sacrifice of one hundred victims in regal style to Minerva whom they call 'Defender of the Folk', and set out for Citium with a band of wearers of the purple and attendants,"<sup>3</sup> Malalas, p. 203, noted a temple at Pella of the "warrior Athena, protectress of Perseus and Heracles, ancestors of the royal Macedonian family."

Numismatists have naturally long been aware of the passage in Livy, our sole source for the surname borne by the Athena on the tetradrachms of Antigonos II Gonatas and Philip V (PLATE XII, 14-15 and 17), the tutelary goddess of Pella, the capital of Macedonia in which these coins were struck. For example, Head recognized that the goddess on Pyrrhus' coins (PLATE XI, 11, 12) was Athena Alkis (*sic*) as early as 1874 when he wrote his treatise on the coinage of Syracuse, their mint-place.<sup>4</sup> He pointed out further that the type occurred first on the coinage of Ptolemy I (PLATE XI, 5-6) and was later used by Antigonos and Philip, and repeated these statements in *Historia Numorum* (1911), when discussing Pyrrhus' issues on p. 183. However, on p. 849 of this book Head described Ptolemy's type as follows: "Archaistic figure of Athena Promachos hurling fulmen."

This is typical of the confusion in our numismatic literature as to the name of the fighting Athena, a veritable battle between Promachos and Alkis in which the former has come out the victor.<sup>5</sup> Head also attributed the wrong weapon to the

<sup>3</sup> Livy, Loeb Classics, XII, 1938, pp. 446-7.

<sup>4</sup> Head, *Coinage of Syracuse*, Num. Chron., N. S., XIV, 1874, p. 57.

<sup>5</sup> Svoronos, *Τὰ Νομίσματα τοῦ κράτους τῶν Πτολεμαίων*, 1904-8, IV, p. 28, called the goddess, Athena Promachos; so also Newell, *Demetrius Poliorcetes*, 1927, under the mint, Salamis; and the present writer, "The Aphlaston," *Transactions of the International Numismatic Congress*, London, 1936, with reference to Ptolemaic coins. Furtwaengler,

Ptolemaic Athena, who invariably wields a spear, whereas on the tetradrachms of the Macedonian kings she always hurls the thunderbolt. Babelon was persuaded that the thunderbolt, so characteristic of Athena Alkis of Macedonia, distinguished her as a different goddess from "the Athena Promachos of Athens, who fights with the lance."<sup>6</sup> This concept appears in a very recent publication by Tarn,<sup>7</sup> when he said, "clearly Alkis, not Promachos" apropos of the Macedonian type on issues of Azes, copied from the Indo-Bactrian coinage of Menander (PLATE XII, 18, 19).

But, aside from the fact that there is no prototype on coins of Athens from which to derive Ptolemy's archaistic fighting Athena, the distinction by weapons is not sound. For, on royal bronze issues of Antigonos and Philip from the mint of Pella,<sup>8</sup> Athena Alkidemos occasionally holds a spear instead of a fulmen while on coins of Pyrrhus struck in Syracuse<sup>9</sup> a thunderbolt sometimes takes the place of the usual spear.

Our Athena type corresponds to the following description. The helmeted goddess is depicted in an archaizing style wearing a high-girdled chiton, fitting tightly around her lower body and falling between her legs in fine folds with one heavy fold in the middle, with an overfall ending in points. Except for one freely imitative type (PLATE XII, 16), she has a shawl

Roscher's *Lexikon*, I, 1, p. 679, under Athene, gave the goddess of Pella her correct title, Alkidemos. Regling, however, named both the Ptolemaic and Macedonian types, Athene Alkis, in *Münzen der Sammlung Warren*, 1906, pp. 109 and 207. In Mammoth's "Die Bronzemünzen des Königs Phillipos V. von Makedonien," *Zeit. f. Num.* XLII, 1932-5, pp. 219f., the goddess of Pella is called "die angreifende," Promachos and once Alkis on p. 291 when citing Head. In Seltman's *Greek coins*, 1923, there is no mention of Alkis; the goddess is either Promachos or the fighting Athena. A special article by P. Godefroy, *Rev. Num.*, XXXIX, (1939) is entitled "Tétradrachmes au revers d'Athéna Promachos."

<sup>6</sup> Babelon, *Rois de Syrie*, 1890, p. xxvii.

<sup>7</sup> Tarn, *The Greeks in Bactria and India*, 1938, p. 349, n. 5.

<sup>8</sup> Gaebler, *op. cit.*, Pls. XXXIII, 26, XXXIV, 23 and XXXV, 8.

<sup>9</sup> Head, *op. cit.*, Pl. X, 12.

over her shoulders falling in dove-tail pleats with two pointed ends. On her left arm she carries a shield; her right arm is raised and in her right hand she holds a weapon, spear or fulmen, poised to strike. Her pose is stiff and she is striding, usually with left leg advanced. Her figure is turned either to right or left and her body is seen in partial front or rear view depending on her direction. When turned to the left she sometimes wears an aegis across the back. To give the appearance of lively motion, the goddess usually walks on tiptoe with one foot; on later coins both feet are on tiptoe.

It is more than probable that this archaistic type is a faithful copy of the statue of Athena Alkidemos, which stood in the temple of Pella. For, the similar but not identical Athena of Antioch on coins of Seleucus I struck there from 300-286 could only have been copied from the bronze statue, which the king is known to have erected in his newly founded capital.<sup>10</sup> The type appeared on the reverse of bronze coins bearing the head of Apollo copied from the famous gold and ivory statue made by Bryaxis, which Seleucus erected at Daphne near Antioch. Thus the types of Athena, who was probably a Polias, "Protectress of the City", and of Apollo, whom Seleucus selected as ancestral god of his family, both reflect contemporaneous Antiochene statues. The Seleucid Athena stood stiffly with legs placed closely together in simulated archaic manner. Hence her lower body is seen in profile view on the coins, which differentiates her type from the Macedonian Alkidemos.

The Athena Ilias on tetradrachms of Ilium of 190-150 was also copied from her statue in the new temple built there by Lysimachus.<sup>11</sup> By good luck we have a much earlier picture

<sup>10</sup> B. M. C., *Syria*, Pl. II, 16; Babelon, *op. cit.*, Pl. III, 7; Newell, *Western Seleucid Mints*, p. 96 and n. 23<sup>a</sup>, Pl. XVI, 9-19. Our literary authority for the erection of the statue is Malalas, p. 201.

<sup>11</sup> Head, *H. N.*<sup>2</sup>, p. 546.



of this statue in the mint-symbol<sup>12</sup> on the reverse of tetradrachms of Ilium issued by Antiochus II, 261–246. The symbol is fortunately large enough for us to discern the archaistic character of the statue, so obvious on the much later tetradrachms. She steps lightly on tiptoe with one leg advanced. Unlike the Macedonian and Seleucid Athenas she is a peaceful goddess, wearing not a helmet but a polos, carrying a distaff, her spear at rest over her shoulder.

At Pergamon too the archaistic Athena Polias on gold staters of the period of Lysimachus was doubtless a copy of a contemporaneous statue.<sup>13</sup> For, her temple on the acropolis is thought to have been built early in the Third Century.<sup>14</sup> She stands facing with feet close together, brandishing a spear and wearing polos and shawl. From her shield hangs a woolen fillet, which we find also on Athena Ilias' statue attached to her distaff.

The introduction of our Palladion, Athena Alkidemos, on a royal coinage took place in Macedonia on the lifetime tetradrachms of Alexander<sup>15</sup> struck at Amphipolis in 326 and 325. Here it was one of the changing magistrates' symbols on the reverse (PLATE X, 1 and 2), a small figure to right not striding, so crudely executed that the spear in her raised right hand is not visible. She wears an Attic helmet as on the coinages of Ptolemy and other kings. On posthumous Alexander-type tetradrachms of Sicyon<sup>16</sup> (PLATE X, 3 and 4) struck after 275, Alkidemos stands to left with left foot advanced as on later issues (PLATE XII, 15).

<sup>12</sup> Newell, *W. S. M.*, Pl. LXXII, 5.

<sup>13</sup> von Fritze, *Corolla Numismatica*, Pl. II, 8 and *Münzen von Pergamon*, 1910, Pl. I, 7.

<sup>14</sup> Esther Hansen, *The Attalids of Pergamon*, p. 222 and p. 406.

<sup>15</sup> Newell, *Alexander Hoards*, *Demanbur* (Num. Notes and Mon., No. 19) nos. 967 and 1100.

<sup>16</sup> Newell, *Alexander Hoards*, *Olympia*, (N. N. M., No. 39) Pl. III, 69.

5 Numismatic Notes

Ptolemy I, the first king to introduce this figure as a *type* on his coinage, employed it on tetradrachms bearing the deified head of Alexander coiffed in the elephant's scalp (PLATE XI, 5). In this series, begun about 315/4,<sup>17</sup> Ptolemy substituted Athena Alkidemos for the seated Zeus, the reverse type he had previously combined with the Alexander portrait. This new coinage, which Ptolemy now inaugurated, he called **ΑΛΕΞΑΝΔΡΕΙΟΝ ΠΤΟΛΕΜΑΙΟΥ**, "Alexander tetradrachm of Ptolemy," and added his personal device, an eagle on fulmen, in the right field.<sup>18</sup> The inscription makes it perfectly clear that Athena of Pella, birthplace and capital of Alexander, was another reference to the dead hero whom Ptolemy had so conspicuously honored by placing his portrait on the first distinctive issues which he struck as satrap. Later, as king, Ptolemy commemorated Alexander again by representing him standing in an elephant chariot on the reverse of the gold staters<sup>19</sup> bearing his own portrait, and also by the obverse type on his bronze issues, youthful head of Alexander with Ammon's horn and taenia or diadem of Dionysus.<sup>20</sup>

Important for the dating of the initial issues of Ptolemy's 'Alexander tetradrachms' are two fine examples of local mintage, one of which bears a date while the other can be dated within a year. On PLATE XI, 6, is the dated piece of Sidon struck by Ptolemy, in the year, 22, of the Alexandrine Era beginning in 333/2, equivalent to 312/11 B. C. On PLATE XI, 7, we have a Cypriote issue with the monogram **Ξ** followed by **B**, in the lower right field of the reverse, which the writer has interpreted<sup>21</sup> as abbreviations of the name and title of

<sup>17</sup> Svoronos gave 311 as the date for the introduction of the Athena type, cf. Head, *H. N.*<sup>2</sup>, p. 848, but Newell, *Demetrius Poliorcetes*, p. 40 and n. 52, showed on the evidence of hoards that the coinage began earlier.

<sup>18</sup> After this initial issue the coins were inscribed **ΑΛΕΞΑΝΔΡΟΥ**.

<sup>19</sup> Svoronos, *op. cit.*, Pl. IV, 1-7.

<sup>20</sup> Ibid., Pl. IV, 14.

<sup>21</sup> Brett, "The Aphlaston," *Trans. Inter. Num. Congress*, 1936, pp. 26-27.

Eunostos, king of Soli in Cyprus, son-in-law of Ptolemy, and dated about 310. These local coinages of Sidon and Cyprus with the inscription ΑΛΕΞΑΝΔΡΟΥ are of later style than the prototype, namely the first issue struck at Alexandria, the central mint, which therefore must have been initiated a few years earlier.

The Ptolemaic Athena was quickly reflected on the coinage of Agathocles, tyrant of Syracuse, who adapted the type to his own purpose. On the reverse of his gold staters (PLATE XI, 8) the fighting Athena was metamorphosed into an Athena-Nike by the addition of wings. This rare coinage commemorated one of Agathocles' victories over the Carthaginians in Africa, probably his triumph over Hanno and Bomilcar<sup>22</sup> in the campaign of 310-309.

About 300-295, Demetrius Poliorcetes struck gold staters at Salamis in Cyprus<sup>23</sup> with a very striking figure of Alkidemos standing to left and seen from the rear (PLATE XI, 9). We have just observed that Eunostos of Soli in Cyprus issued tetradrachms with Ptolemy's types a decade earlier, hence from his coinage and the much more numerous tetradrachms of Ptolemy from the mint of Alexandria, which must have reached the island in trade, the Athena coin device was well-known. When Demetrius was considering the issuance of gold staters with obverse, Nike on prow, to accompany his tetradrachms with the same obverse and Poseidon on the reverse, symbolizing his capture of Cyprus in 306, Ptolemy's fighting Athena presented itself as a suitable type. As a Macedonian goddess, Alkidemos would have appealed to Demetrius since his father, Antigonus, at the height of his great power had acted as though he should be regarded as the sole heir of Alexander's empire. What prompted Demetrius to adopt the

<sup>22</sup> Hill, *Historical Greek Coins*, No. 65, pp. 112-113.

<sup>23</sup> Newell, *Dem. Pol.*, Pl. II, 11 and 12. Athena is on the reverse.

type will best be considered later when we discuss the theories of Head and Svoronos on its general significance.

Pyrrhus, king of Epirus, first used the Athena figure as symbol on his gold staters struck at Tarentum, about 280 (PLATE XI, 10) bearing types personal to himself, the Epirote Zeus and an eagle on a thunderbolt.<sup>24</sup> Athena is here striding to left as on Demetrius' staters but with right leg advanced and in side view. Pyrrhus' next coinage with our type consists of silver octobols struck at Syracuse, 278-6 (PLATE XI, 11), with his name as king in contrast to the Tarentine staters with civic ethnic. On this example, Athena strides to left, with left leg advanced as in Demetrius' type though she is less static. On another issue (PLATE XI, 12) Athena's right leg is advanced, she is in side view and both halves of her shawl are flying in the wind.

Pyrrhus had formerly been king of Macedonia for a short time in 287/6 after he and Lysimachus divided the kingdom when Demetrius lost the throne (288). Thus his use of the Macedonian type is not surprising even if when he left Greece in 281 he could not have had any serious pretensions to the crown. Nevertheless, not long after his return from Magna Graecia he fought a successful war with Demetrius' son, Antigonus Gonatas, and ruled Macedonia from 274 to 272. Pyrrhus also struck bronze coinage at Syracuse but in the name of the city bearing Macedonian types, head of Heracles in the lion's skin, Alexander's tetradrachm type, and Athena Alkidemos on the reverse (PLATE XI, 13). Of these there are coins of better style pointing to an earlier date, which have the ethnic on the obverse and Athena facing to right with spear, and later issues with ethnic on the reverse on which Athena holds a fulmen and her shield with inner side facing. The

<sup>24</sup> Evans, *Horsemen of Tarentum*, Pl. V, 17, p. 139 and p. 140, n. 170; Vlasto, *Num. Chron.* 1930, pp. 145f.

thunderbolt, Athena's invariable weapon on Antigonus' tetradrachms first struck in 277, was seemingly borrowed from Macedonian issues. Summing up, we see that Pyrrhus realized the propaganda value of employing the Macedonian Athena on his coinage and of emphasizing his relationship to Alexander, who was his second cousin on the side of his father, Aeacides, cousin of Olympias, mother of Alexander.

We come now to Athena Alkidemos at home in her native Pella. Here she appears first on a special issue of the tetradrachms of Antigonus Gonatas commemorating his triumph over the Gauls at Lysimachia in 277 (PLATE XII, 14). As the protecting goddess of Pella she is honored on the reverse, while the obverse flan is entirely occupied by a Macedonian shield in the center of which is a head of Pan, the god who spread "panic" terror among the barbarians.<sup>25</sup> On this splendidly designed reverse die, Athena is in high relief, striding to right, seen in partial front view, wielding a fulmen and holding a large shield embossed with a head of Pan. The fine execution of obverse and reverse, position of the goddess to right and presence of the king's name and title in minute letters on the obverse distinguish this issue as a special one. For on succeeding issues, Athena faces to left in rear view and a Gorgoneion takes the place of Pan's head on her shield (PLATE XII, 15). In both of these Antigonid types, as in most others, the goddess has the left leg advanced; she holds fulmen and walks on tiptoe. On the second series of tetradrachms with the figure to left, she wears an aegis across her back.

Achaeus, who usurped the Seleucid kingdom in western Asia Minor during the reign of Antiochus III (223—187) struck gold and silver coins at Sardes, his capital, having as reverse type, an Athena (PLATE XII, 16) resembling Alki-

<sup>25</sup> Gaebler, *Ant. Münzen*, III<sup>2</sup>, Pl. XXXIV, 1 and 2.

demos, but without shawl and brandishing a spear<sup>26</sup>. Though influenced by the Antigonid type, Achaeus' Athena, whose shield bears the Seleucid anchor, seems rather to connote the Antiochene Athena statue erected by Seleucus I, mentioned earlier. For Achaeus was a member of the royal family, probably a great-grandson of Seleucus, a relationship which he could propagandize by using the founder's Athena type. It had been repeated on bronze issues of Antiochus I, II and III; on those of the second Antiochus, standing on the anchor.<sup>27</sup> That Achaeus actually had the family type in mind seems to me proved by the circumstance that his Athena wields the spear, the weapon characteristic of all Seleucid issues of the period preceding his reign.<sup>28</sup>

Philip V (220-179) was the next Macedonian king to introduce our type on major issues. On his tetradrachms, Athena is represented in very poor style (PLATE XII, 17) often with exaggerated stride for a figure standing on tiptoe.

A half century or more later, Menander, king in northwest India, adopted the Macedonian Athena on his principal coinage, tetradrachms of Indian weight (PLATE XII, 18 and 19). On similar coins of the succeeding Indo-Bactrian rulers, queen Agathocleia and Strato, members of his family, the type was continued, and thereafter had a great vogue in this part of the Greek world and was copied by Indo-Parthian kings. The form of the Athena figure and the aegis-covered shield and aegis across the back show that it was the tetradrachms of

<sup>26</sup> Catalogue Jameson, Pl. LXXXV, 1692; Newell. *W. S. M.*, Pl. LX, 2, p. 269.

<sup>27</sup> At Seleucia, Susa and Tarsus, cf. Newell, *E. S. M.* and *W. S. M.*

<sup>28</sup> Alexander I Balas used the type, Athena stepping with wide stride to right wielding fulmen, Babelon, *Rois de Syrie*, No. 883. Except for the direction of the figure, it resembles the Macedonian prototype. It is a bronze coin dated in the Seleucid year 167 = 146/5, and may therefore have been issued when the king was fighting for his life in his last year, 145. Here we see another Seleucid usurper using an adaptation of the Macedonian Athena type; Balas' coinage has many allusions to the great Alexander whose name he bore.

Antigonos rather than Philip which were the prototype. This is further shown on Menander's early issues (PLATE XII, 18 and 19) where the Gorgoneion, a feature of Antigonos' coinage, occurs in the center of the aegis-covered shield; the aegis is, however, depicted by dots rather than as a skin bordered by snakes.

The reason why Antigonos' coin-type served as the model for Menander's Athena is that the Macedonian king struck his tetradrachms in great quantity and they were also issued posthumously, whereas Philip's issues, rare today, were apparently of limited number. Furthermore, Philip inaugurated a new series of tetradrachms with different types in the last decade of his reign, and Perseus, his son, did not use the Athena type.

Menander was a king most famous among the Greek rulers of India. He is known to have cooperated with Demetrius of Bactria in the conquest of this country. Strabo, who is our source, stated that the Greeks overthrew more peoples than Alexander had done<sup>29</sup>. One wonders therefore if Menander in adopting the Macedonian Athena of Pella was not proclaiming on his coins that he, like a second Alexander, was a great conqueror of India.

Or, was the fighting Athena used by him merely because it was a warlike type? Some numismatists have occasionally thus interpreted it especially when designating the goddess as Promachos. While this meaning, naturally implicit in the type, may account for some instances of its employment, for example perhaps by Achaeus, on the whole we believe that its predominant significance on the coinages here examined was that it represented the majestic, protecting goddess of the Macedonian royal capital of Pella, Alexander's birthplace. In the case of Ptolemy, who first introduced Athena Alkidemos as a coin type about 315, when he entered a coalition with Cassan-

<sup>29</sup> Strabo, XI, 516 and XV, 686.

der and Lysimachus against the elder Antigonos, its explanation given above as a reference to Alexander seems more reasonable than as a symbol of impending warfare. As for Achaeus, who certainly was at war and to whom the militant type might hence appeal, his fundamental motive was to proclaim his Seleucid and hence Macedonian descent to justify his rule over Western Asia Minor. His coinage has been dealt with here only because his Athena in dress and action shows the influence of the Antigonid prototype.

In identifying our fighting goddess as Athena Alkis (*sic*) of Macedonia, Head<sup>30</sup> explained her appearance on the coinages of Ptolemy, Pyrrhus, Antigonos and Philip V as "a symbol of sovereignty over Macedon", a theory endorsed by Evans<sup>31</sup> and Babelon<sup>32</sup>. Its applicability to the issues of Antigonos and Philip, kings of Macedonia, might seem obvious though in truth hardly appropriate. How Head came to advocate this idea becomes clear when we see that he naturally had to explain first the earliest occurrence of the type, namely on the coinage of Ptolemy. In Head's time, the tetradrachms with this reverse bearing the name of Alexander were assigned to Alexander IV. Thus Head wrote "coins of Alexander Aegos,<sup>33</sup> struck by Ptolemy" and "coins struck for the young prince, Alexander Aegos, the son and rightful heir of Alexander the Great." Consequently Head meant the 'sovereignty' to refer not to Ptolemy but to his suzerain, the legal though merely nominal head of the empire. How sovereignty over Macedonia would apply in the case of Pyrrhus, Head did not discuss.

However, numismatists have long ago realized that Ptolemy first of all the Successors initiated a wholly independent kind of coinage, one which was peculiarly his own. As we have seen,

<sup>30</sup> Head, *Syracuse*, p. 57.

<sup>31</sup> Evans, *Horsemen*, p. 140, n. 170.

<sup>32</sup> Babelon, *op. cit.*, p. xxvii.

<sup>33</sup> Imhoof-Blumer, *Monnaies Grecques*, p. 455, reminds us that "Alexander Aigos" is



he even put his name temporarily on the Athena tetradrachm series. But apart from this first issue he continued as before to strike money in the name of Alexander the Great like the other satraps, Antigonus, Lysimachus and Seleucus. On his very first tetradrachms he had preserved the types of Alexander unchanged. Then about 318 he introduced a new obverse, Alexander's portrait in the elephant scalp, and about 315/4 discarded the old Alexandrine reverse, Zeus seated, for our type, Athena Alkidemos. These tetradrachms, like PLATE XI, 5 but with ΑΛΕΞΑΝΔΡΟΥ continued to be struck long after the death of Alexander IV in 310 running even concurrently with Ptolemy's regal gold staters with new personal types and his name and title, initiated in 305. The inscription ΑΛΕΞΑΝΔΡΟΥ has no more reference to Alexander IV on Ptolemy's coinage than on the Alexander-type coinages of other Successors, *e. g.*, Antigonus I at Antigonea on the Orontes, 306–301; Seleucus I at Susa *with Basileos*, 310–301 and at Ecbatana *without Basileos* 311–303.<sup>34</sup> Hence we need not ask whether the Athena type could connote the young Alexander's "sovereignty over Macedon."

Svoronos thought that the goddess, whom he identified as Promachos, was a copy of some well-known Palladion, the protectress of cities, symbolizing on the coinages of Ptolemy, Pyrrhus and Demetrius the freedom, which these kings would obtain for the Greek cities of Alexander's empire.<sup>35</sup> Now we know that when Antigonus I proclaimed that "all Greek cities everywhere should be free, ungarrisoned and self-governing," Ptolemy reacted by issuing a similar proclamation.<sup>36</sup> Hence we could believe that the type was appropriate for Ptolemy

a copyist's error in the text of the Canon of the Kings, ἀγὼς for ἄλλος, as pointed out by Droysen, *Geschichte des Hellenismus*, 2nd ed., 1878, vol. II, I, 1, p. 12, n. 4.

<sup>34</sup> For these coinages, cf. Newell's *W. S. M.* and *E. S. M.*

<sup>35</sup> Svoronos, *op. cit.*, I, pp. π' and πα', IV, p. 28.

<sup>36</sup> Droysen, *op. cit.*, vol. II, III, 1, p. 12; Diodorus, XIX, 61 and 62.

provided that it did connote the idea of freedom for Greek cities. As for Demetrius, Newell thought it was extremely doubtful if this was the significance of the type on his issues.<sup>37</sup> Very pertinently he asks why if Demetrius was making propaganda on his coins by using this type he placed it only on his limited issue of gold staters, so small that only two specimens have come down to us, and on insignificant bronze coins of restricted circulation. It should be noted that Vlasto in his recent study of Tarentine gold and silver coins, though quoting Evans apropos of the figure occurring as numismatic symbol on Pyrrhus' gold staters struck at Tarentum, followed Hill in calling it Pallas Promachos and cited Svoronos' view<sup>38</sup>. In so doing he misquoted Newell as accepting Svoronos' theory by the error of omitting Newell's parenthetical words, "in his (i. e., Svoronos') estimation."

Newell believed that Athena "Promachos" on Demetrius' gold staters was a copy of the same statue seen earlier on Ptolemy's coinage, that the fighting Athena and fighting Poseidon on his gold and silver issues, each turned to the left and combined with a Nike on prow as obverse type,<sup>39</sup> signified that they had helped Demetrius win his brilliant naval victory. Of interest in the Demetrian type is the Gorgoneion in the center of the aegis-covered shield since this was doubtless the ornament on the shield of the statue in Pella. On the special issue of tetradrachms first struck by Antigonus at Pella in commemoration of his triumph at Lysimachia (PLATE XII, 14) Athena Alkidemos carries a shield on which the boss is a head of Pan, giver of victory in this battle, but thereafter the decorating symbol was the traditional head of Medusa, or Gorgoneion, on an aegis (PLATE XII, 15). Demetrius' die-cutter,

<sup>37</sup> Newell, *Demetrius Poliorcetes*, pp. 38f.

<sup>38</sup> Vlasto, *Num. Chron.*, 1930, pp. 151-152.

<sup>39</sup> Also Dressel's opinion, *Zeit. f. Num.*, XXIV, 1904, p. 48.

we observe, was not a mere imitator for on Ptolemaic issues the shield is always plain-surfaced.

Newell has presented convincing reasons why Demetrius decided to employ Ptolemy's fighting Athena as reverse type for his gold staters. As he said, turned to the left she formed an exact counterpart to the figure of Poseidon, which had already appeared on his tetradrachms. And, we may add, Athena Alkidemos of the royal Macedonian city of Pella would no doubt have had especial attraction for Demetrius. Neither the "sovereignty over Macedon" of Head nor the "symbol of freedom for Greek cities" of Svoronos can apply to Demetrius' case, which, we see, was an appropriation or borrowing of a type and adapting it to his own purpose.

While Athena was widely worshipped as a protecting goddess of the city with various descriptive epithets such as Polias and Poliouchos, at Pella as Alkidemos, "Defender of the People," can we accept Svoronos' ingenious idea that the Pellean Athena on Ptolemy's coinage was a symbol of freedom for the Greek cities of Alexander's former empire? At Syracuse, Timoleon, the liberator (344-317) introduced on the coinage the head of Zeus Eleutherios and the free horse, symbols of democracy easy to interpret then as now.<sup>40</sup> Other cities of Sicily, which also used the head of Zeus with his name and title, ΕΛΕΥΘΕΡΙΟΣ, as an allusion to their freedom restored by Timoleon, were Aetna, Agyrium and Alaesa, about 340. The type was later revived on coins of Syracuse under the Democracy, 299/8.

On Fourth Century electrum staters of Cyzicus<sup>41</sup> a seated female figure holding a wreath seems to personify Freedom since the rock on which she is seated is labelled ΕΛΕΥΘΕΡΙ[A]. Another seated female figure on Third Century bronze coins

<sup>40</sup> Head, *H. N.*,<sup>2</sup> pp. 179-180; G. Rizzo, *Intermezzo*, 1939, Pt. II, a special article on Zeus Eleutherios types with superb illustrations.

<sup>41</sup> von Fritze, *Nomisma* VII, Pl. VI, 27; Regling, *Zeit. f. Num.*, XLI, 1931, p. 42, n. 2.

of Tios in Bithynia<sup>42</sup> is inscribing her name ΕΛΕΘΕΡΙΑ, on a tablet (?), the type commemorating the city's recovery of autonomy in 282.

Democracy is personified on bronze coins of Cnidus<sup>43</sup> in Caria, 300–190, by a female head named ΔΑΜΟΚΡΑΤΙΑΣ and at Telos, a small island near Rhodes, bronze coins bear the legend ΔΗΜΟΚΡΑΤΙΑΣ, accompanying a facing head of Athena against a background of an aegis.<sup>44</sup> Athena is here the Polias, who with Zeus Polieus is mentioned in Telian inscriptions. These personifications of Eleutheria and Demokratia are of extremely rare occurrence. Since they bear no distinctive attribute to define their character, they are always named by an inscription written in full. Zeus Eleutherios, on the other hand, was a prominent type on gold, silver and bronze issues of Syracuse and other Sicilian cities in Timoleon's time, the head regularly encircled by his name and epithet.

Athena, however, never appeared in the role of liberator on Greek coins, which effectively disposes of Svoronos' theory. Even though she was called "Defender of the People", Athena of Pella, the royal capital of Macedonia, could certainly never have been a symbol of Democracy. The conclusion to which our argument leads is what we stated in the beginning. Ptolemy selected Athena Alkidemos as reverse type to go with his portrait of Alexander because she was a Macedonian goddess. Zeus, Heracles and Athena had been the deities favored by Alexander for his coinage, hence Ptolemy's decision to introduce Athena on his tetradrachms is understandable; the Pellean goddess had been already represented as symbol on Alexander's tetradrachms.

<sup>42</sup> Head, *H. N.*<sup>3</sup>, p. 518.

<sup>43</sup> *Ibid.*, p. 616; Imhoof, *Monn. Gr.*, p. 310.

<sup>44</sup> *Ibid.*, p. 642; Imhoof, *Gr. Münzen*, Pl. X, 17, p. 678.

While the Athena symbol on Pyrrhus' Tarentine gold staters imitated the direction to the left of the same figure on the staters of Demetrius, it can have no reference to this former king of Macedonia. When Pyrrhus issued his staters in Tarentum soon after his arrival in 280, the king of Macedonia was Ptolemy Keraunos, son of Ptolemy I. He had assisted Pyrrhus in his preparation for the Italian expedition by supplying Macedonian foot-soldiers, horsemen and war-elephants. These are the special circumstances which, we believe, account for the presence of the Macedonian Athena on the gold coinage of Pyrrhus. It seems the more certain because this Pyrrhic badge alternated with the elephant symbol on contemporaneous silver litrae of Tarentum bearing identical types. The two blazons used by Pyrrhus evidently heralded his Macedonian connections.<sup>45</sup> He had in fact, before leaving for Italy, married the daughter of Keraunos.

Later, at Syracuse, the Macedonian Athena formed the reverse type of Pyrrhus' regal silver octobols with Syracusan obverse, head of Persephone, and of his bronze issues with Macedonian obverse, Heracles' head in the lion's skin, struck in the name of the city. Since we do not have a corpus of Pyrrhus' Syracusan coins, the precise order and dating of these issues remain uncertain. On the silver coins with the Persephone head executed in good style (PLATE XI, 11, 12) Athena wields a spear as in Ptolemy's type, yet she stands to left and her shield has a Medusa boss as on Macedonian coins of Antigonos. On the other hand, there is a bronze coin with Heracles head as obverse, which has an Athena standing to right with spear as on Ptolemaic coins. The British Museum example is overstruck on a coin of Agathocles.<sup>46</sup>

<sup>45</sup> Evans, *Horsemen*, Pl. V, 16, 18.

<sup>46</sup> Head, *Syracuse*, Pl. X, 11.

We conclude here our survey of Athena Alkidemos on royal coinages. On autonomous coins there are examples of a similar fighting Athena whose relationship to the cultus statue of Pella and to her figure on the coins here illustrated would be worth investigating.

AGNES BALDWIN BRETT

## A NEW HERACLES TYPE FROM THE MINT OF PERINTHUS

The purchase by the Museum of the American Numismatic Society in September, 1948, of a coin of Gallienus struck at Perinthus in Thrace enables us to add to Bräuer's list of the coins representing the Labors of Heracles<sup>1</sup> a variant type and a new mint which struck a reverse depicting the cleaning of the Augean stables:



*Obv.* Head of Gallienus r., laureate. Around rim, l. to r.,  
ΑΥΤΓΑΛΛΙ Η[ΝΟ]CΑΥΓ

*Rev.* Heracles standing r., lion's skin hanging from his shoulders. He grasps a two-pronged tool, upraised in both hands. Before him a large heap of refuse or rocks, at the foot of which, to l., a basket or jar. Around rim, l. to r., ΠΕΡΙΝΘ[Ι]Ν ΔΙC ΝΕΩΚΟΡΩΝ

Among the coin types representing the Labors of Heracles, the cleaning of the Augean stables by the hero is one of the least frequently met: "Eurystheus imposed upon Heracles the task of cleaning the stables of Augeas in one day. Augeas was king of Elis, and extremely rich in cattle. Heracles, with-

<sup>1</sup> R. Bräuer, "Die Heraklestaten auf antiken Münzen," *Zeitschr. f. Num.* XXVIII (1910), pp. 67-69.

out mentioning the command of Eurystheus, went to Augeas, offering in one day to clean his stables, if he would give him the tenth part of the cattle for his trouble, or according to Pausanias (v. 1. 7) a part of his territory. Augeas, believing that Heracles could not possibly accomplish what he promised, agreed, and Heracles took Phyleus, the son of Augeas, as his witness, and then led the rivers Alpheius and Peneius through the stables, which were thus cleansed in the time fixed upon."<sup>2</sup> Of this myth as a coin type, Bräuer wrote in 1910: "Nur drei Städte haben auf ihren Münzen dieses Abenteuer darstellen lassen, das sich überhaupt infolge der Schwierigkeit der Wiedergabe bei den Künstlern sehr geringer Beliebtheit erfreute. Nach dem Mythos erledigte Herakles den Auftrag des Eurystheus dadurch, das er die beiden Flüsse Alpheios und Peneios in den Stall des Augias hineinleitete. Das vermögen die Künstler nicht darzustellen, daher lassen sie Herakles das schwierige Werk der Reinigung selbst vollbringen."<sup>3</sup> In other words, Bräuer has found the myth represented on the coins of only three cities, and the artists who ventured to engrave the cleaning of the Augean stables on dies for coins seem to have been at a loss as to how to represent the sensational method of cleaning imputed by the myth to Heracles. For, according to the myth, the hero turned the courses of the rivers Alpheus and Peneus into the stables, and thus cleansed them. On the coins there seems to be but one attempt to indicate the use of water at all, on coins of Antoninus Pius struck at Alexandria;<sup>4</sup> and there Heracles appears to be only washing

<sup>2</sup> W. Smith, *A Dictionary of Greek and Roman Biography and Mythology*, London, 1880, II, p. 395; see also Daremberg-Saglio, *Dictionnaire des Antiquités grecques et romaines*, s. v. *Hercules*, p. 90 and W. H. Roscher, *Lexicon der Griechischen und Römischen Mythologie*, I, pt. 1, cols. 2229 and 2244.

<sup>3</sup> *Zeitschr. f. Num.* XXVIII (1910), p. 67.

<sup>4</sup> G. Dattari, *Numi Augg. Alexandrini. Catalogo della Collezione G. Dattari*, Cairo, 1901, p. 166, no. 2605: year 5 of Antoninus Pius; J. G. Milne, *University of Oxford, Ashmolean Museum. Catalogue of Alexandrian Coins*, Oxford, 1933, no. 1714 (year 5 of Antoninus



his hands at a lion's head fountain. The hero is usually given a two- or three-pronged tool,<sup>5</sup> and one gets the impression that with this he did a realistic and unpoetic job of cleaning out the manure of Augeas' oxen. On a Spanish mosaic published in a recent issue of the *American Journal of Archaeology* (LIII, 1949, p. 156 and Pl. XXIV), however, Heracles is evidently striking for water with his tool, and our coin may well represent a similar act, though performed less violently. In descriptions of sculptural reliefs depicting this Labor, scholars have taken it for granted that Heracles is represented as engaged in diverting the streams;<sup>6</sup> where the hero is vigorously em-

Pius) and no. 1912 (year 10 of Antoninus Pius). Three specimens of the year 10 of Antoninus Pius are in the Newell Collection, and one in the Mills Collection, all at the Museum of the American Numismatic Society.

<sup>5</sup> "Harpa": Dattari following Mionnet and Eckhel; "mattock": Mattingly and Sydenham, *The Roman Imperial Coinage*, V, pt. 2 (Webb), p. 365, no. 350. On the spade-like type of instrument see note 6. On one of the types known to Bräuer a basket appears as an additional piece of the paraphernalia for cleaning (again, see note 6).

<sup>6</sup> S. Reinach, *Répertoire de reliefs grecs et romains*, II (Paris, 1912), p. 475: "creusement d'un canal." Cf. D. C. Spitzer in *Hesperia*, XI (1942), pp. 166-169, who sees in the scene on a Roman relief bowl the combined use of river and muscle to clear away the dung. The instrument H. uses here "resembles the hoe or mattock with spade-like point in use today." Below I list some sculptural reliefs on which the story of the Augean stables is represented: 1. E. Curtius, F. Adler, and G. Treu, *Olympia*, Txtbd. III (Berlin, 1897), *Alpb. Reg.*, s. v. *Metopen des Zeus-T., Augeas-M.*; C. Friedrichs and P. Wolters, *Die Gipsabgüsse Antiker Bildwerke* (Berlin, 1885), p. 134; E. Buschor and R. Hamann, *Die Skulpturen des Zeustempels zu Olympia* (1924), Pl. LXXIX; A. Baumeister, *Denkmäler*, II, p. 1104 X; M. Collignon, *Histoire de la sculpture grecque*, I, p. 432; Reinach, *Répertoire de reliefs*, I, p. 198, no. 3. 2. Reinach, *op. cit.* p. 100, no. 3 = E. Espérandieu, *Recueil*, II, p. 36, no. 899, 1: H. holds pick and rests foot on overturned basket "qui lui a servi pour l'enlèvement des immondices." 3. Reinach, *op. cit.* II, p. 475 = F. Matz, *Annali dell'Inst.* XL (1868), pp. 249-264 = C. Robert *Die Antiken Sarcophag-Reliefs*, III, pt. 1, Pl. XXXIII, 120: H. is vigorously hewing rock with a pick; a basket stands before him; Robert (p. 141) believes the hero is cutting the new channel for the Alpheus. 4. Reinach, *op. cit.*, III, p. 30 = Robert, *op. cit.* Pl. XXXI, 113; cf. 112; here an overturned jar probably represents the rivers. H. holding a spade stands watching the results of his labor in exultation. The water flowing from the jar seems to pour into a basket or other vessel. Behind is Alpheus observing H. 5. Reinach, *op. cit.* III, p. 340 = Robert *op. cit.* III, Pl. XXXV, 126 b; see also p. 145. H. merely stands, club in l. hand, lion's skin on arm; in r. hand he holds a hoe which rests on the ground. 6. Reinach, *op. cit.*, p. 374, a stream flowing down rocks; H. bends to wash his hands or to divert the water into a new channel. 7. A. Klügmann in *Annali dell'Inst.* XXXVI

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ployed with the spade, and where this action is shown along with a stream of water, this does indeed seem to be the case. But in one case where water is clearly represented,<sup>7</sup> there is a question whether Heracles, as on the coins of Alexandria, is washing his hands; and in another,<sup>8</sup> an overturned vase from which water flows may simply be symbolic of the act considered difficult to represent. In brief space, it is clear (and in sculpture as on coins, the space was definitely limited, as the nature of the monuments shows), the myth was not easy to depict, and even sculptors seem to have been faced with the necessity of simplification.<sup>9</sup> Hence, the difficulty of interpretation. On our coin Heracles has a two-pronged tool, a basket or jar (which appears, too, on one of the types known to Bräuer), and in addition, there is a huge pile of rocks or dung before which the hero stands, perhaps in some despair, for he is not represented in vigorous action, his attitude being rather that of a man about to attack or renew a hard job. This, together with the pile before him, gives a realistic and human picture rather than a heroic one.

The coins listed by Bräuer as illustrating the cleansing of the Augean stables were struck at Alexandria, at Hadrianopolis, and at Heraclea Pontica. Our coin adds Perinthus in Thrace, i. e., a mint in the same general region as two of the above mentioned mints. It is an interesting fact, and one that should be mentioned here, that these four cities, along with Nicaea in Bithynia, take up more space than any others in Bräuer's geographical index of cities which illustrated the Labors on (1864), pp. 304-323 and *Tav. d'agg. U*: H. kneeling on object (basket?) vigorously hewing away at a pile of rock(?).

<sup>7</sup> Reinach, *Répertoire de reliefs*, III, p. 374.    <sup>8</sup> *Op. cit.* p. 30.

<sup>9</sup> The idea of the diversion of the rivers may always have been present in the mind of the artist to condition his representation. This, along with Heracles' haste to get the job done, may explain the vigorous action of the hero even when he is meant to be only raking. One conspicuous feature of our coin is the fact that Heracles is *not* pursuing his task with vigor.

their coins; that is, these four, which represented on their coins the cleansing of the Augean stables, struck the greatest variety of Labors. It is only natural, then, that a rarely represented Labor should appear on coins issued from these mints.

Our readers will be interested in knowing that our Gallienus piece comes from the collection of A. B. Cook, the author of the ponderous opus *Zeus*, a truly Herculean achievement. The identity of our reverse type was not at once apparent. The tool in the hero's hand, however, and the basket or jar, provided the key to the type. The identification of Heracles was never in question, for the lion's skin hanging from his shoulders is very clear, though there seems to be no trace of a club on the coin. The club, however, is not an indispensable object for any given representation of Heracles.

The cult of Heracles was honored long and steadily at Perinthus. The types of Heracles on coins of the third century A. D. are of special interest because of the identification of the emperor at that time with the hero.<sup>10</sup> The medallic bronze coins of the family of Septimius Severus, which represent a high point in the numismatic history of Perinthus, gave a conspicuous place to the Labors among a variety of interesting types. Our coin, being struck under Gallienus, falls far below the Severan standard, and was one of the last to be minted at Perinthus, for the local coinage of the Empire collapsed during or immediately after his reign. There are other coins of Perinthus bearing the portrait of Gallienus and reverse types of Heracles (see, e. g., Bräuer, *op. cit.* pp. 45, 80), but our reverse type, it seems, is not to be found for this Emperor in our ordinary catalogues or periodical literature.

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<sup>10</sup> Cf. coins of Gallienus; Mattingly and Sydenham, *The Roman Imperial Coinage*, V. pt. 1, p. 170; p. 183; R. Delbrueck, *Die Münzbildnisse von Maximinus bis Carinus*, Berlin, 1940, Pl. 16, no. 62; coins of Postumus: Mattingly and Sydenham, *op. cit.*, pt. 2, pp. 345, 349, 356, 359, 361, 362, 363, 365, 366; coins of Probus: Delbrueck, *op. cit.* Pl. 27, no. 24.



## SOME GREEK COINS IN THE AMERICAN NUMISMATIC SOCIETY COLLECTION

(SEE PLATE XIII)

The following selection of coins from a few widely-scattered mints is composed of recent acquisitions together with related pieces from the Newell Collection.<sup>1</sup> Many of the types are apparently unpublished; other specimens have been included as variants or because they permit corrections in the description or attribution of known issues.

### CIBYRA, CILICIA (?)

1. Head of Augustus r., bare.

*Rev.* **CEBACTOC** around capricorn to l., looking back. **M** **Λ** (?)  
below. Border of dots.

Æ ↑ 17 mm. 3.75 grms.

(From Pozzi Coll. but not listed in sale catalogue)

A study of the coinage of Elaeusa-Sebaste led to the reconsideration of this piece in the Newell Collection. The type is published by Mionnet (III, p. 660, No. 631) who gives the legend as **CEBACT...ΩN** and assigns the issue to Elaeusa. Imhoof-Blumer in his discussion of the coinage of that town (*Revue suisse*, 1898, p. 28) corrects Mionnet's reading to **CEBACTOC** with **M** **Λ** below and rejects the Elaeusa attribution, without suggesting any other mint possibility. Our piece is evidently the same type: the OC termination of the inscription is certain and the **M** **Λ** at least partially legible.

<sup>1</sup> To Miss D. H. Cox I am indebted for permission to illustrate a coin of Cibyra from the Tarsus collection which she published. M. Jean Babelon and Drs. Eduard Holzmair and Karl Pink have provided reproductions and information regarding pieces in the Paris and Vienna Cabinets. I am most grateful for their assistance.

Miss D. H. Cox in publishing a Tarsus coin collection in the Adana Museum (*Num. Notes & Monogr.*, No. 92) lists a coin of Cibyra, No. 84, which provides a clue to the origin of our piece. A comparison of the two specimens (Nos. 1 and A on PLATE XIII) brings out clearly the close resemblance, particularly striking in the rendering of the head of Augustus. Although the capricorn faces in opposite directions on the two coins, it is surrounded on both reverses with the CEBACTOC form of the legend. The Adana piece, however, has KIBYPAT instead of MΥ below. Miss Cox connects her Cibyra coin with two other bronzes of the same general type: one recorded by Imhoof-Blumer (*Monn. gr.*, p. 397, No. 88) with CEB KIBYPATΩN and the capricorn right, the other by Babelon (*Invent. Wadd.*, No. 5819) with KIBYPATΩN and no direction specified for the capricorn. The first piece is 18 mm. in diameter; the second, like the Adana specimen and ours, is 17 mm.

Our No. 1 seems to belong with these other Cibyra coins of Augustus. The group offers an interesting variety of inscriptions, but no one of them supplies definite proof as to which Cibyra issued the money since the CEB and CEBACTOC are to be associated with Augustus rather than with the town. Imhoof-Blumer and Babelon ascribe their coins to the Phrygian Cibyra, while Miss Cox suggests that the Adana piece, as well another bronze in the same collection, may have been struck by the Cilician Cibyra — an attribution which is strengthened by the provenance of the collection and the large proportion of Cilician coins in it. On our specimen the MΥ is a puzzling variation of the legend. The K may be intended for the mint or the district and the M for Μητρόπολις, but there is no epigraphical evidence known to me which would substantiate this title for either Cibyra.<sup>2</sup> If the letters

<sup>2</sup> Of the two, Cibyra in Phrygia would seem to have the better claim to the designation at the time of Augustus. According to Pliny (*N. H.*, V. 105) it was the center for 25 city-

stand for *Μεγίστης Καλλίστης*, as they do on the coinage of Anazarbus and Tarsus, one might consider this a further indication of a Cilician origin for our coin, even while marvelling at the inflated civic pride which could describe Cibyra Minor as "the greatest and the best".

## ELAEUSA-SEBASTE

2. **CEBACTH ΦΑΥCΤΕΙΝΑ** Bust of Faustina II r., diademed and draped. Border of dots.  
*Rev.* **CEBACTH ΜΗΤΡΟ/ΠΑΡΑΛΙΟΝ** to r. and l. of mummy-shaped figure on a base. Border of dots.  
*Æ* ↗ 15 mm. 1.85 grms.
3. **ΑΥΤΚ ΠΛΙΚ ΟΥΑΛΕΡΙΑΝΟ** C Bust of Valerian I r., laureate and draped. Border of dots.  
*Rev.* . . . . . **ΔΑΥΝΑΥΑΡ ΧΙC** Dionysos holding thyrsos and kantharos, panther (?) at his feet l. **ΠCΡ/ΔΕΤ** arranged downward to l. and r. of figure<sup>3</sup>. Border of dots.  
*Æ* ↓ 32 mm. 15.79 grms.  
 (From Schroeder-Wertheim Coll.)
4. **Π ΛΙΚ Γ ΑΛΛΙΗΝΟ CC** Bust of Gallienus r., laureate, wearing paludamentum and cuirass. Border of dots.  
*Rev.* **CEBAC THNA V AP XI C** Mummy-shaped figure of Artemis on base, holding branches over stag l. and doe r. Border of dots.  
*Æ* ↗ 25 mm. 7.87 grms.

This little group of Elaeusa-Sebaste coins is of special interest in that it adds two new imperial issues to the known mint series of that Cilician town. Heretofore, it was assumed that the monetary output of Elaeusa ceased after the union with Cilicia in 74 A. D. and was resumed only in the time of Commodus to continue through the reign of Valerian.<sup>4</sup> Our Nos. 2 and 4 prove

states in the Cibyratica district. Little is known of the Cilician Cibyra during the same period; in Byzantine times it was of sufficient importance to give its name to the Cibyrrhaeote theme (Const. Porphy., *De Themat.*, I, 38, 3).

<sup>3</sup> For the significance of the letters in the field, see Miss Cox's interpretation (*loc. cit.*, p. 23).

<sup>4</sup> Of earlier issues sometimes attributed to Elaeusa, Imhoof-Blumer (*Revue suisse*, 1898, pp. 28, 32 ff.) rejects the coin of Augustus (our No. 1 above) and questions the reading

that the period of activity for the Elaeusa mint must be extended to include Faustina II and Gallienus. The former may even have had some personal association with Elaeusa. She is known to have accompanied her husband on a tour through Asia Minor and to have died suddenly at the village of Halala, later renamed Faustopolis, which is presumed to have been close to the Cilician gates and hence not too far from Elaeusa.

The Faustina issue, acquired by the Society in 1948, must certainly be assigned to Elaeusa-Sebaste. The ΠΑΡΑΛΙΟΝ points unmistakably to the Cilician island, the only one of five mint towns named Sebaste or Sebasteia which could legitimately claim to be a Sebaste-by-the-Sea. While the CΕΒΑCΤΗ ΜΗΤΡΟ of the legend is merely a continuation of the form customary on the later autonomous issues, the addition of the descriptive ΠΑΡΑΛΙΟΝ is unique for the Elaeusa mint and, to the best of my knowledge, finds its only parallel in the coinage of another Cilician town, Antiocheia ad Cragum, whose earliest imperial pieces belong to the period of Antoninus Pius and Faustina II. The reverse type is suitable for Elaeusa, being in all probability an extremely primitive rendering of the same mummy-Artemis which appears on our Gallienus specimen, from the Newell Collection, and also on Elaeusa issues of Julia Domna and Crispina (No. B on Plate XIII, from the Paris Cabinet).<sup>5</sup> This early mummy-shaped figure, placed on a spherical base, has arms crossed over the breast and a head

of one ascribed to Trajan by Sestini (*Lett. num. cont.*, VIII, p. 96; Pl. II, 13). On the other hand he suggests that certain silver pieces of Nerva and Trajan, usually assigned to Caesarea in Cappadocia, may have been minted at Elaeusa. Wroth (B. M. C., *Gallia*, etc., p. xxxvi) argues on convincing grounds against this transfer.

<sup>5</sup> Both the Crispina and Domna coins are published by Imhoof-Blumer – the first in *Nomisma*, 1913, Pl. II, 24 and the second in *Kleinasiatiscbe Münzen*, II, Pl. XVII, 4. In each instance the author connects the type with Aphrodite Urania or Astarte. Now that we have on money of Gallienus a representation which is undoubtedly Artemis, the statue on the three earlier issues may plausibly be identified as the same goddess. Despite certain variations in dress and posture, the figure retains its distinctive mummy-form aspect throughout the series.



which is little more than a pellet on a stalk with a vertical stroke at the top possibly intended to represent the polos. A similarly sketchy treatment of the head of the mummy-Artemis occurs on the money of Anemurium, but there the body is swathed in horizontal bandings which Hill (B. M. C., *Lycaonia*, etc., p. xli) suggests may be an attempt to indicate the bee form of Artemis. On our coin, however, there are traces of a dotted robe such as the goddess wears on the Gallienus specimen and on the coinage of Ephesus. From the three illustrated Elaeusa pieces, it is possible to see the development of the mummy-Artemis type over a 75 year period. The engraver of the Faustina coin either had no clear conception of the device or was so cramped by the size of his flan as to be unable to do it justice. The Crispina piece, issued only a few years later, shows a decidedly more realistic treatment of the type, particularly with regard to the head. By the time of Gallienus the figure is definitely a cultus statue of Artemis in the Ephesian tradition but with variations such as one finds on the issues of Anemurium.

Our No. 3, a bronze of Valerian from the Newell Collection, is undoubtedly the type listed without illustration by Mionnet (*Suppl.*, VII, p. 296, No. 568) after Sestini (*Lett. num. cont.*, VIII, p. 98). The excellent preservation of our piece allows a correction in the earlier descriptions. The object in the right hand of Dionysos is not a bunch of grapes but a kantharos held downward. Although the lower surface of the coin is somewhat worn, traces of an animal's head and tail suggest the traditional panther at the god's feet rather than a *cista mystica* with emerging snake as reported by Mionnet.

## BOSTRA

5. Head of Antoninus Pius r., laureate. Border of dots.

*Rev.* ΕΟ CT Ram standing to r. Border of dots.

Æ 11 mm. 1.80 grms. (From Flinders Petrie Coll.)

Purchased by the Society in 1947, this coin is similar to three pieces in the Newell Collection.<sup>6</sup> The type is apparently unpublished.

In size our coins are the smallest known to have been issued at Bostra, being most nearly comparable to the quasi-autonomous specimens with Tyche bust and camel (B. M. C., *Arabia*, etc., p. 16, Nos. 1-2). To all appearance the obverse is anepigraphic although the crudely executed portrait of the emperor fills the available space so fully as to make certainty impossible. The inadequacy of the flan for the device is particularly noticeable in the reverses. Only in the case of the illustrated coin is the complete body of the ram shown, while the border of dots, visible in part on several of the Newell specimens, is here almost entirely off flan. The abbreviated form of the inscription is also found on a larger denomination of Antoninus Pius, but the treatment on our coins is unconventional: the first three letters reading downward from the lower right field, followed by a T which is reversed and placed upright in the exergue.

The ram is undoubtedly to be associated with Zeus Ammon, who is frequently represented on the coins of Bostra. His bust appears as a reverse type from the time of Commodus on, while the standing figure of the god with a ram at his feet is used on money of Trajan Decius and probably also on issues of Elagabalus and Etruscilla.<sup>7</sup>

There has been considerable speculation as to the signi-

<sup>6</sup> All three Newell bronzes were originally in the Rouvier Collection. They vary as follows: a.  $\searrow$  11 mm. 2.05 grms.; b.  $\downarrow$  10 mm. 1.44 grms.; c.  $\downarrow$  11 mm. 1.34 grms.

<sup>7</sup> The clearest representation of Ammon and the ram is to be found on a coin of Trajan Decius, illustrated as Fig. 36 by C. R. Morey (Appendix to Div. II. Sect. A. Part 4 of *Publications of the Princeton University Archaeological Expedition to Syria in 1904-1905 and 1909*). Two Elagabalus issues and one of Etruscilla show a standing figure with an animal at his feet. Morey describes one type (No. 24) as Ammon (?) and the other two (Nos. 25, 51) as Bacchus (Dusares); however, Hill (B. M. C., p. xxvii) believes that it is Zeus Ammon with a ram who is depicted on both the second and third pieces.

ficance of the Ammon types at Bostra. Dussaud, writing in the *Revue numismatique* (1904, pp. 171 ff.), advances the theory that Zeus Ammon was identified with the Nabataean deity Dusares. It would then follow that the representations of the former on the coinage are to be taken as evidence not of a separate cult but rather of one aspect under which the local divinity was worshipped. In the introduction to the British Museum Catalogue, Hill follows Morey in rejecting the Ammon-Dusares identification and attributing the Ammon cult to the influence of the *Legio III Cyrenaica*, which is mentioned in inscriptions from the time of Marcus Aurelius and later as having its headquarters at Bostra.

Our coins do not solve the problem. They indicate that the cult of Ammon or Ammon-Dusares was already established at Bostra in the time of Antoninus Pius, but this does not rule out the proposed military origin. Although epigraphical evidence connecting the *Legio III Cyrenaica* with the Arabian capital dates from the reign of Marcus Aurelius, there is reason to believe that at an earlier period the legion was in Arabia and probably in Bostra itself.<sup>8</sup> However, if the cults were separate in the beginning, it seems clear that they soon became closely linked in the popular mind. Throughout the Bostra coinage there is a striking parallelism in the representations of Zeus Ammon and the youthful Dusares. The earliest imperial issues use the ram of Ammon and also the camel, which in all likelihood is to be associated with Dusares. With Commodus the types become anthropomorphic as busts of the two deities appear on the coin reverses, while still later under Caracalla or Elagabalus, the picture is complete: Dusares on

<sup>8</sup> See Kubitschek (Pauly-Wissowa, *R. E.*, s. v. *Legio*, pp. 1509–1510) for the departure of the *Legio III Cyrenaica* from Alexandria between 120–127 A. D. and its possible establishment at Bostra during or at the end of Hadrian's Jewish campaign.

his camel<sup>9</sup> and Ammon with the ram at his feet. Furthermore, as Newell points out (*Num. Chron.*, 1923, p. 160), there is even a curious identity in the costume of the two gods. At times the busts are conventionally draped, again both are clad in the cuirass of the Roman soldier.

## PTOLEMY OF MAURETANIA

6. REX PTOLEMAEVS Bust of Ptolemy r., diademed and draped. Border of dots.  
*Rev.* R AVI to l. and r. of winged caduceus; all in wreath. Border of dots.  
*R.* ↘ 15 mm. 1.60 grms.
7. Similar.  
*Rev.* R A/VIII in two lines in wreath. Border of dots.  
*R.* ↑ 14 mm. 1.68 grms.
8. Similar.  
*Rev.* RAX I to l. of cornucopiae and sceptre in saltire. Border of dots.  
*R.* ← 17 mm. 1.85 grms.
9. Similar.  
*Rev.* RAX VI to l. and r. of single spear of wheat; all in wreath. Border of dots.  
*R.* ↙ Broken.

No. 9 is a fairly recent acquisition of the Society; the other Ptolemy pieces are from the Newell Collection. The second and fourth types seem to be unpublished, while the caduceus and cornucopiae issues bear dates hitherto unrecorded for those varieties.

The winged caduceus, adopted as a coin device by Ptolemy at the very beginning of his reign, is used infrequently, either alone or in combination with other symbols. As the sole reverse type, it was struck in silver for the year 1 (Charrier, *Monnaies de la Numidie*, etc., No. 311) and in bronze for the year XVII

<sup>9</sup> The identification of the camel-rider is that of Morey (*loc. cit.*, p. 13, Nos. 21-22), supported by Kubitschek (*Num. Zeit.*, 1916, p. 191). Hill (B. M. C., p. xxviii, n. 4) suggests the possibility of another Nabataean god.

(Charrier, No. 322). Our No. 6 adds a silver issue for the year VI.<sup>10</sup>

No. 7 is a type apparently unknown in silver. Müller (*Numismatique de l'ancienne Afrique*, III) and Charrier list bronze coins with RA XV, RA XVI and RA XVII in a wreath, which is described by the former as oak and by the latter as laurel. Unfortunately the examples are not illustrated in either publication, but one of the coins cited, in the Vienna Cabinet, has an unadorned oak wreath in contrast to our crown which seems to be of laurel.

The rendering of the laurel band with its numerous berry clusters and three disks is unusual, while the omission of any device within the circle focusses further attention on the wreath itself. Crowns with a central jewel or medallion attachment are known from Hellenistic and Roman times and representations of them occur on the coinage of Augustus (cf. B. M. C., *Coins of the Roman Empire*, I, Pls. I ff.).<sup>11</sup> Considering the close ties between Rome and Mauretania at this period, there is a strong likelihood that the die engravers of Juba II and Ptolemy were influenced by the Roman coins

<sup>10</sup> Another example of the caduceus type from the Allotte de la Fuÿe Collection (Ciani Sale, 1925, No. 1830) may represent still a third silver striking. The arrangement, with RA in the upper field to the left of the caduceus, differs from that on the coins of years I and VI, but from the photograph it is impossible to determine what numerals, if any, were originally inscribed to the right of the type.

<sup>11</sup> One cannot be absolutely certain that the disks of the coin wreaths are intended to represent gems. On certain issues of the Bosphorus kings (Syll. Cop., *Bosporus*, Pl. 2) the object at the top of the circle is very like the round shield which appears on other reverses of the same series. Nevertheless for the Roman coinage, it would seem more reasonable to suppose that we have representations of the crowns given for services to the state, which Pliny (*N. H.*, XXII. 4. 3) describes as *gemmae et aureae*.

An earlier reference to such a jewelled wreath is to be found in a Delian inscription of the second century B. C. (Homolle, *B. C. H.*, 1882, p. 32, lines 29-30) with its record of a gold crown with a carnelian in the center, a dedicatory offering of Queen Stratonice. For other examples of Hellenistic and Roman wreaths with gem or coin-like attachments, see Stephani's listing of objects from graves in South Russia (*Compte-rendu de la Comm. imp. arch. de St.-Petersb.*, 1875, pp. 16 ff.).

when they occasionally embellished the plain laurel circlet with a jewel at the top (Charrier, Nos. 192, 360). The triple-gemmed wreath on our coin may be merely an additional elaboration or it may derive from the *corona* which Ptolemy received from Tiberius following the subjugation of Tacfarinas *c.* 24 A. D. (Tacitus, *Ann.*, IV, 26). Ptolemy's pride in the insignia bestowed by Rome is revealed by the repeated use of the grouped *sella curulis*, sceptre and wreath as the reverse type for his silver issues and even for a rare gold piece. True, the wreath when shown in conjunction with the other objects has no indication of jewels, but that may have been due to the difficulty of reproducing such details in a small scale representation.

Our coin shows evidence of restriking on the reverse. The original type may have been a capricorn issue of Ptolemy himself; the lavishness with which the berry clusters are strewn on both sides of the frame of the wreath makes it hard to trace the underlying device.

On the money of both Juba II and Ptolemy the cornucopiae and sceptre in saltire is a common reverse type. No. 8 is of particular interest in that it was struck in the year XI, a date which strangely enough is not otherwise represented on the published issues of Ptolemy. It seems clear, however, that on our piece the stroke below the fillet of the cornucopiae is a 1 to be connected with the preceding RAX. Except for the struggle against Tacfarinas, the reign of Ptolemy appears to have been singularly uneventful. Nothing in the records of the period explains this unique break in the coinage. Either there was a crisis of which we have no knowledge or the copious output of the years previous prompted a curtailment of mint operations *c.* 31 A. D.

Our No. 9 is distinguished from other issues of Ptolemy by the use of the single spear of wheat without any supplementary

device. Ordinarily the regal silver carries two or three spears, but in the case of one coin cited by Charrier (No. 401), which was minted in the same year as ours, there is a single spear shown with crossed thyrsi.

MARGARET THOMPSON





## MEROVINGIAN COINS IN THE COLLECTION OF THE AMERICAN NUMISMATIC SOCIETY

(SEE PLATES XIV–XV)

In 1949 the American Numismatic Society's small collection of Merovingian coins was greatly enriched through the acquisition of eight gold coins formerly in the Lord Grantley Collection. Five of these were tremisses bearing the names of Merovingian kings, one a solidus of Clothaire II, King of Austrasia (613–622 A. D.), one a tremissis of the Palace and one a tremissis belonging to that rare and interesting class struck in the name of the Administration of the School. The obverse of one (No. 14 below) bears strong resemblance to the obverse of the Wotan type of sceats struck in England at about the same period and was perhaps the prototype of such coins. These specimens from the Lord Grantley Collection along with other accessions during the last five years provide the Museum with the representative collection which is completely catalogued below. The Lord Grantley specimens have been asterisked. The references are to: M. Prou, *Catalogue des Monnaies Françaises de la Bibliothèque Nationale*; *Les Monnaies Mérovingiennes* (Paris, 1892) and A. Belfort, *Description générale des Monnaies Mérovingiennes* (Paris, 1892–95) 5. vols.

### MEROVINGIAN COPIES OF ROMAN COINS

1. Triens. Copy of triens of Justinus I, 518–527 A.D.  
*Obv.* Diademed bust of Emperor to right. **IVZTINIVZPPPTV**.  
*Rev.* Rude Victory standing facing; holds wreath with right hand, cross with left. **VICTVRIAΛVCOZIVI**. In exergue, **CONO**.  
Extra fine. Gold, 1.28 grs. Prou 1; Belfort 5185.

2. Triens. Copy of triens of Justinus I, 518–527 A.D.  
*Obv.* Diademed bust of Emperor to right. **INTSVVA+INSICV**.  
*Rev.* Rude Victory standing facing; holds wreath with right hand, cross with left **VI---VIVI-VTNI--** (reading from bottom, clockwise).  
 Fine. Gold, 1.24 grs. Cf. Cumont, *Cong. Int. Num.*, July 1891, p. 193–202.
3. Triens. Copy of triens of Justinian, 527–566 A.D.  
*Obv.* Diademed bust of Emperor to right. **ONVSTIVIAVSOTAV**.  
*Rev.* Cross. **-OCTVCSI RIAVCCS-** (reading from bottom, clockwise). Very fine, but was mounted. Gold, 1.10 grs.
4. Triens. Copy of triens of Justinian, 527–566 A.D.  
*Obv.* Diademed bust of Emperor to right. **DNIVSTIAV ANVIBMVO**  
*Rev.* Victory standing facing; holds wreath in right hand, cross with left. **CVI---VNTOLVMOQ** (reading from bottom, clockwise). In exergue, **ON**.  
 Very fine. Gold, 1.46 grs.
5. Triens. Copy of triens of Justinian, 527–566 A.D.  
*Obv.* Bust of Emperor to right. **DNIVSTNI ANVSPIAVC**.  
*Rev.* Victory standing facing; holds wreath and cross.  
**VTTORIAVVCVHO+L**.  
 In exergue, **CDHΘ**.  
 Very fine. Gold, 1.29 grs.
6. Triens. Copy of triens of Justinian, 527–566 A.D.  
*Obv.* Barbarous bust of Emperor to right. **DNIVST NIAN--**.  
*Rev.* Victory standing facing looking to right; holds wreath and cross. **VICTOP-IAAC** In exergue, **ON**.  
 Very fine. Gold, 1.44 grs.
7. Triens. Merovingian (?) copy of triens of Justinian, 527–566 A.D.  
*Obv.* Barbarous bust of Emperor to right.  
**DNIVSTNI NIANVSTAV**.  
*Rev.* Barbarous Victory walking to left; holds globus and wreath (?). Star in field below globus. **VICTORIAΔVCVITOQVI**. In exergue, **CONOB**.  
 Very fine. Gold, 1.36 grs.

ROYAL MEROVINGIAN COINS

- 8. Solidus. Massilia (Marseille), Clothaire II, King of Austrasia, 613–622 A.D.  
*Obv.* Diademed bust to right. **CHLOTARIVSREX**.  
*Rev.* Cross on single step; globe below. **M** and **Λ** in field to left and right.  
 Stars to left and right of globe. **CHLOTARIVSREX**.  
 Fine. Gold, 3.47 grs. Belfort 2471. Triens, Prou 1338 similar.
  
- 9. Triens. Arvernus (Clermont-Ferrand), Childebert II, King of Austrasia, 575–596 A.D.  
*Obv.* Diademed head to right. **+CHELDE DERΠ**  
*Rev.* **ΔR**, Between letters, pellet beneath star; small cross above, **C** below.  
 Extra Fine. Gold, 1.36 grs. Belfort 335. A similar coin attributed by Prou (1714) to Childebert, son of Grimoald, Mayor of the Palace, 656–657 A.D.
  
- 10. Triens. Vivarios (Viviers), Clothaire II, King of Austrasia, 613–622 A.D.  
*Obv.* Diademed bust to right. **CLOTAHRIVSRIX**  
*Rev.* Cross on single step; globe below. **VI** and **VA** to left and right in field. **V** and **..** to left and right of globe. **VICTORIAΛATOIC Ω**.  
 Very fine. Gold, 1.21 grs. var. Prou 1347, var. Belfort 4929.
  
- 11. Triens. Bannaciaco (Banassac), Caribert II, King of Aquitaine, 629–632 A.D.  
*Obv.* Diademed head to right. **MAXIMINVS M**.  
*Rev.* Chalice surmounted by cross. **CHARIBERTVSREX**.  
 Extra fine. Gold, 1.30 grs. Prou 2060, Belfort 697.
  
- 12. Triens. Ucece (Uzes), Dagobert I, King of Austrasia, 629–639 A.D.  
*Obv.* Diademed bust to right. **DAGOBERTVS** retrograde.  
*Rev.* Cross on base of two steps; globe below. **V** and **C** to left and right of cross. **REX DEVS** retrograde.  
 Extra fine. Gold, 1.22 grs. Prou 2475, Belfort 4611.
  
- 13. Triens. Vivarios (Viviers), Dagobert I, King of Austrasia, 629–639 A. D.  
*Obv.* Diademed bust to right. **DAGO BERT**.  
*Rev.* Cross on single step; globe below. Pellet to left and right in upper field, **VI** and **VΛ** to left and right in middle field, **..** and **V** to left and right of globe; the whole within circle of dots. Legend illegible.  
 Very fine. Gold, 1.12 grs. Belfort 4932, var. Prou 1348.

7\*

•14. Triens. The Palace. (Probably struck in Paris).

*Obv.* Head facing. (Similar to the head on the British sceats of the "Wotan" type.) **PAL** ✠ **O** **IN**.

*Rev.* Cross surmounted by an inverted omega; three pellets above, one pellet below. **INGO** ✠ **ALDO**.

Extra Fine. Gold, 1.21 grs. Belfort 3513. This coin, which is probably unique, is from the Collection of P. d'Amicourt.

•15. Triens. School of the Palace. (Probably struck in Paris).

*Obv.* Barbaric head to right. **TO** ✠ **IMLO** ✠.

*Rev.* Cross. **IZCLOAE** **MO**.

Extra fine. Gold, 1.21 grs. Belfort 3515. This coin was from the Collection of Poey d'Avant.

### COINS OF CITIES AND TOWNS

16. Denier. Arelato (Arles).

*Obv.* Monogram, **AD** (Aredis-Name of Arles), within circle of dots.

*Rev.* Monogram, **AT** (Antenor, Patrician), within circle of dots.

Very fine. Silver, .98 gr. Belfort 291, Prou 2827.

17. Triens. Augusteduno (Auton).

*Obv.* Diademed bust to right. **ACVSTE** ✠ **DVNO** ✠.

*Rev.* Cross chrisme on base of two steps. **A** and **C** to left and right in field. **ASTR** ✠ **VLFS** ✠.

Extra fine. Gold, 1.22 grs. Belfort 462, Prou loc. cit. page 17, 16.

18. Triens. Bannaciaco (Banassac).

*Obv.* Diademed bust to right between two palms each terminating in a cross.

*Rev.* Chalice. **CAULETANO** **F**. Below exergual line, **BAH**.

Extra fine. Gold, 1.25 grs. Prou 2079; Belfort 708, attributed to Sigbert II, King of Austrasia, 634-656 A.D.

19. Triens. Bannaciaco (Banassac).

*Obv.* Diademed head to right; in front of face, a palm of four branches, one of which terminates in a cross.

*Rev.* Chalice. **CAULETANO**. Below exergual line, **BAH**.

Extra fine. Gold, 1.22 grs. var. Belfort 736 to 740, attributed to Sigbert II, King of Austrasia, 634-656 A.D.

20. Triens. Cabilonno (Chalon-sur-Saône).  
*Obv.* Diademed bust to right. **†CABI LONNOFIT.**  
*Rev.* Cross on base of three steps; C and A to left and right in field; the whole within circle of dots open at the bottom. **BONE [FACIVS E VINTRIO].**  
 Very fine. Gold, 1.20 grs. var. Prou 183; Belfort, 1199 and 1200.
21. Triens. Dorestate (Wijk-bij-Duurstede, Holland).  
*Obv.* Diademed bust to right. **ΔORESTATIFIT.**  
*Rev.* Cross on base of single step; below, ::. **MAΔELINVSM.**  
 Extra fine. Gold, 1.28 grs. Prou 1224, Belfort 1760.
22. Triens. Dorestate (Wijk-bij-Duurstede, Holland).  
*Obv.* Diademed bust to right. **ΔORESTATIFIT.**  
*Rev.* Cross on base of single step; below, ::. **IIΔELINVSM.**  
 Extra fine. Gold, 1.25 grs. var. Prou 1226 and 1227, var. Belfort 1761.
23. Triens. Doso, Vicus (Dieuze).  
*Obv.* Diademed bust to right. **ΔOΛOICOI+PATC.**  
*Rev.* Cross with pellets in angles 1 and 2 and Λ and A in angles 3 and 4, respectively. **†BOCCINIIVOMONITA.**  
 Very fine. Gold, 1.15 grs. var. Belfort 1820.
24. Deniers (2). Massilia (Marseille).  
*Obv.* M with cross above. Two pellets beneath.  
*Rev.* Cross with O, C, Λ and Ç within angles.  
 Very fine. Silver, 1.10 and 1.16 grs. Prou 1602; Belfort 2755. Two specimens.
25. Denier. Massilia (Marseille).  
*Obv.* Head to right with small cross in front.  
*Rev.* Monogram, **ME** within circle.  
 Very fine. Silver, 1.1 grs. Belfort 2767. Carpentin attributes this denier to Patrician Metrano.
26. Denier. Massilia (Marseille).  
*Obv.* Diademed head to left; cross in front.  
*Rev.* **2** within oval. **- - Λ EDER -**. (Ansebert, Patrician).  
 Very fine. Silver, 1.15 grs. Prou 1472; Belfort 2710.
27. Denier. Massilia (Marseille).  
*Obv.* Monogram, **AT** (Antenor, Patrician) within circle of dots.  
*Rev.* **SM** with small cross above second letter; the whole within circle of dots  
 Very fine. Silver, 1.10 grs. Prou 2832; Belfort 6263.

## 28. Denier. Massilia (Marseille).

*Obv.* Within circle of dots: head to right with small cross behind.

*Rev.* Cross with arms terminating in letters N F D S (Nemfidius, Patri-  
cian) with circle of dots.

Fine. Silver, 1.30 grs. Prou 1546; Belfort 2631.

## 29. Triens. Uncertain.

*Obv.* Diademed bust to right. --IA-OAIOT.

*Rev.* Cross chrisme; below ∴ ---ENV<FOM. (perhaps Raenulfo M).

Very fine. Gold, 1.20 grs. Belfort 1473.

## 30. Triens. Uncertain.

*Obv.* Rude diademed bust to left. NR---3.

*Rev.* Crude cross on base of one step; a pellet to left and right and below.  
Legend of meaningless characters: √^N- -^√. (reading clockwise from  
bottom).

Fine. Gold, 1.20 grs. Possibly North Germanic copy of some Merovingian  
triens.

## 31. Triens. Uncertain.

*Obv.* •E• with m above. ODOARYM (reading clockwise from top).

*Rev.* †: Apparently meaningless legend: MEMIU<DX. (reading  
clockwise from top).

Very fine. Gold, 1.20 grs. Cf. Belfort 1721.

## 32. Triens. Uncertain.

*Obv.* Diademed bust to right. JJINOOI9NIIA. (reading clockwise from  
bottom).

*Rev.* Cross between two palms; globe above cross. Below exergual line,  
ONO.

Extra fine. Gold, 1.60 grs. Some resemblance to Belfort 5359 and 5360.

## 33. Denier. Merovingian (?), Uncertain.

*Obv.* Standing figure facing to left; holds cross with right hand.

-----VE~IOAIO.

*Rev.* Cross pattee with globules at each point. -IRODEMARIS---.

Very fine. Silver, 1.31 grs. Cross on rev. similar to Belfort 4193, 542 and 99.

DOUGLAS P. DICKIE AND R. D. PARROTT

## THE ORLOWSKI COLLECTION OF POLISH COINS AND MEDALS

(SEE PLATES XVI-XVII)

The American Numismatic Society has been very fortunate to add to its Cabinet in 1948 and 1949 the greater part of the collection of Polish coins and medals assembled during the past forty years by Count Alexandre Orłowski of Pittsford, Vermont. The generous gift consists of about 2050 items of which approximately 385 are medals pertaining to Polish history from Vladislav Jagiello up to the present time. The coins amongst which are some great rareties give a vivid picture of the magnitude of Polish coinage not only in Poland proper but also in the neighbouring countries. The collection contains rich series of Lithuanian, Transylvanian & Prussian coins as well as a fair representation of the city coinages of Riga, Danzig, Thorn, Posen, etc. which were at one time or another part of the Polish Kingdom. Mr. Orłowski spared neither effort nor expenses to bring this collection together. He purchased very little in Poland; the bulk of it was purchased from European dealers and came also from famous collections like Chelminski, Kubicki, Frankiewicz to name only a few.

In order to give an idea of the quality of the collection a few of the highlights have been selected. They are shown on the PLATES XVI and XVII. These pieces are described as follows:

1. SIGISMUND I 1506-1548. Ducat 1546 struck at Danzig. Bust crowned right.  
*Rev.* Two lions supporting city-shield. Hutten-Czapski 5655RRRRR.  
Marienburg 8036. Kubicki 125.

2. SIGISMUND AUGUST 1548–1572. Necessity Taler 1564 struck during the Livonian War. Monogram SA interlinked, XXX (Value in Groschen) below. *Rev.* Crowned Polish arms with Sforza shield in the center. Hutten-Czapski 528RRRRR. Schulthess 1615. Maillet Suppl. Plate 62,1. Chelminski 81.
3. STEPHAN BATHORI 1575–1586; Duke of Transylvania 1571–1575. Cast silver medal 1582 commemorating the capture of Polock & occupation of Livonia. Bust of the king dividing legend, in fur coat & feather hat. *Rev.* Inscription. Hutten-Czapski 2570 (Bronze). Gumowski 14. Formerly in the collection of Bishop Stupnicki sold by Egger 1896. 36 mm. 15,5 gr.
4. Necessity Taler 1577 struck by Caspar Goebel at Danzig during the siege of the city by Stephan Bathory. Bust of Christ to right. *Rev.* Two lions supporting city-arms. Hutten-Czapski 609. Vossberg 540. Maillet I. Plate B2.
5. SIGISMUND III 1587–1632. Crown 5 ducats 1611 (Half Portugaloeser). Bust crowned right. *Rev.* Arms. Hutten-Czapski 1273RRRRRR. Hildebrand 35.
6. Lithuanian 5 ducats 1622 (Half Portugaloeser). Bust crowned right. *Rev.* Arms. Hutten-Czapski 10274RRRRR.
7. Taler 1629 struck at Thorn commemorating the brave defense of the city under General Wrangel against the Swedes; so-called "Conflagration-Taler". View of the burning with 10 boats on the Vistula. *Rev.* Angel with city-shield, 7 lines inscription below. Hutten-Czapski 1593R. Vossberg 266. Maillet Plate 111, 1. C. Schulthess 7245.
8. VLADISLAV IV 1632–1648. Taler 1645. Bust facing. *Rev.* Arms of Poland and Lithuania with Swedish center shield. Hutten-Czapski 1855 RRR.
9. JOHANN CASIMIR 1648–1668. 3 ducats 1659 struck at Thorn. Crowned bust right. *Rev.* Two angels hovering over city-view. Hutten-Czapski 2134. Marienburg 9077.

HENRY GRUNTHAL



## CASTLES AND LIONS ON SPANISH COLONIAL COINS

### A STUDY OF DETAILS OF DESIGN AS AN AID TO IDENTIFICATION

The coins of the colonial mints of Spain which operated at Mexico, Potosí, Lima and Santa Fé de Bogotá before 1732 or the installation of screw presses, were hammer-struck. Their blanks or flans, particularly of the so-called "cob" pieces were crude, uneven in thickness, and small in diameter. Moreover, many of the coins were double-struck and not well centered on their flans, with the result that the details of the die impression were blurred and indistinct. The legends, particularly on the "cob" coins, appear only in part around the small, thick blank, omitting almost, and in many cases entirely, the name of the ruler and the date.

Because of these circumstances, it has been very difficult to assign the coins to their various mints or to attribute them to the ruler under whom they were struck. If complete and accurate records of the various assayers with their terms of office were available, the assayer's initial on a specimen would help to classify it along with the initial of the mint. However, our lists of the names, initials and dates of the assayers from 1536 to 1732 (the period with which we are principally concerned) are very incomplete and full of confusion.

In an attempt to classify the early coins of colonial Spain it has been found that it is almost impossible to list the coins by die varieties. Double-striking has changed the details as shown on each coin from the same die in such a degree that coins from the same die are not recognizable as such. The writer, therefore, turned to the study of details of the die as displayed

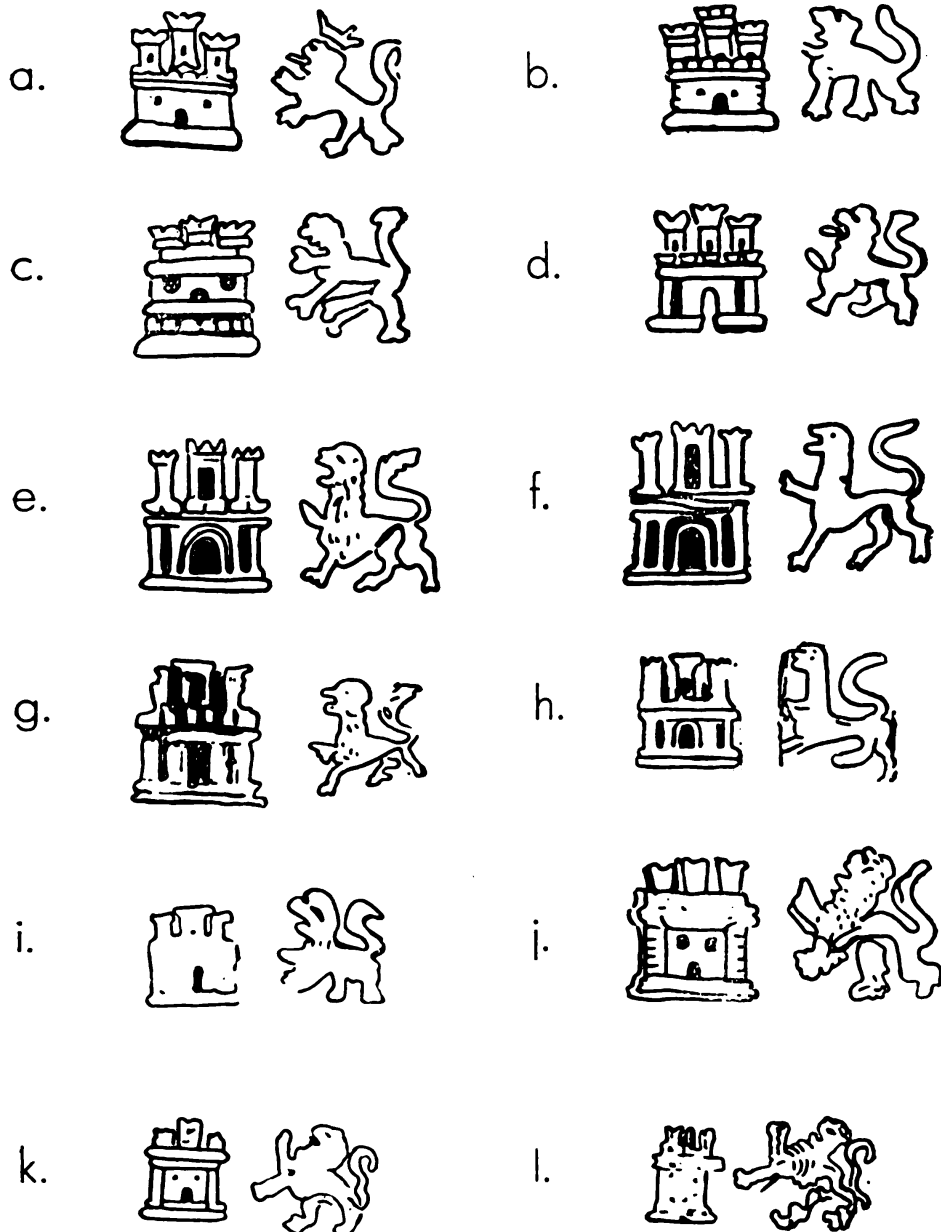
on the coins, considering them separately and comparing them for differences and changes.

The most obvious details are those of the castle of Castile and the lion of Leon. They are easily seen and their designs vary greatly during the whole period. Naturally, there were also changes in lettering, in the shape of the pomegranate, in the crown design above the shield. For present purposes, observation of those in the castles and lions will serve to illustrate the method.

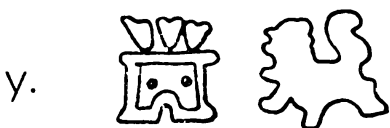
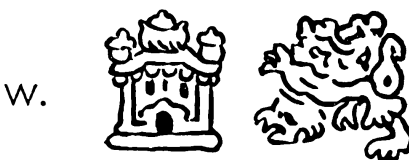
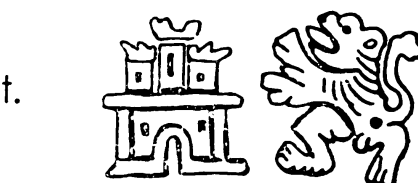
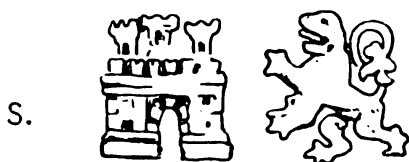
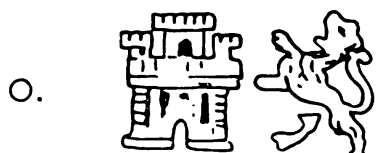
The principal changes of detail took place because of the method by which the dies were made. The dies were not engraved in the sense that the design was cut into a steel blank with engraving tools. The die-sinker (he was not an engraver) executed his die with a set of punches. Each punch carried on its end a letter of the legend, a numeral, a crown detail, a dot, a dash, a lion, or a castle. Because the punches were cut in relief in steel, the design was necessarily simple. In the case of colonial workers, the complete design of the castle or lion was sometimes too complicated to cut into one punch.

Because of their skill in metal working, Indians were in many cases employed in cutting punches. Their designs reflect their native art. The differences between the castles and lions on punches cut in Spanish mints and shipped to the New World mints can be distinguished easily from those cut in American mints by local workmen.

The Spanish lion on the shield was originally rampant. Gradually his position and features changed. Instead of rearing proudly on his hind legs, he put all four feet on the ground. At the hands of the native engravers, the king of the beasts took on the form of a llama, a dragon, or a mouse. Counterfeiters were, as a result, misled; beautiful Oriental counterfeits, which have been sold at high prices as genuine coins, are found with pagodas and dragons for castles and lions.



The accompanying illustrations, made from tracings of enlarged photographs of actual coins, will demonstrate graphically the above general observations. Detailed comments on each of the illustrations follow:



a. Charles and Johanna, 3 reales, Mexico City Mint. Assayer: Francisco del Rincon, "R." Punches cut in Spain. The same design appeared also on the one, two and four reales pieces during 1536-1538, the first two years in which the

**Mexico City Mint operated. The die-sinker was Anton de Vides. Note the Spanish style castle and the crown on the rampant lion.**

b. Same period as a. The punch for the lion is the same but the crown has either been broken off, or, if added separately as is more likely, has been omitted. The lion's tongue, which appeared for the first two years, and which was added separately, is omitted and the lion has been tilted forward so that he appears passant.

c. Charles and Johanna, one real, Mexico City Mint. Assayer: Gutierrez Velasquez, "G." Cut in Mexico by native which is evident from the design. The castle is similar to the Aztec ideograph for a "grainhouse" and the lion is very primitive. Study of a number of these coins indicates that the punch for the lion consisted of the head and body, with smaller additional punches being used to add the legs and tail. Circa 1540.

d. Charles and Johanna, one real, Mexico City Mint. Assayer: "G." Circa 1543. New punches, no doubt cut in Spain and sent to Mexico. The tongue and front leg have been added to the lion with separate punches.

e. Charles and Johanna, two reales, Mexico City Mint. Assayer: "A." Cut in Spain. The tongue of the lion has been omitted; as it was a small detail, the die-sinker evidently did not bother to use it.

f. Counterfeit of a Charles and Johanna eight reales, recently made in Mexico. A fair copy of early pieces but just enough wrong in design to be easily detected by one familiar with details of the coins. Coins of eight reales, i. e., of dollar size, were not made at the Mexico City Mint until late in the reign of Philip II.

g. Charles and Johanna, two reales, Mexico City Mint. Assayer: "O." Circa 1555-6. The finely cut Spanish punches have become broken and distorted from hard use. This effect is not from wear in the die but in the punches, which have been kept in use despite their deteriorated condition. This is evident from the same breaks which show on various dies as the punches gradually disintegrated. Observation of the stages of disintegration in the punches provides a means of determining the order of succession of the dies.

h. Counterfeit of a Charles and Johanna four reales, of very early native workmanship. While the maker knew mint processes and how to cut the various punches needed to sink a die, he did not have the necessary skill to perfect his work.

i. Philip II, first coinage from Lima Mint, 2 reales, Assayer: "R."

j. Philip II or III, Lima or Potosí Mint. 8 reales. The mint initial is "P" and the assayer's initial "B." From native punches. The legs appear distinctly as having been added separately to the body and head of the lion.

k. Philip II or III, Lima or Potosí Mint. 8 reales. The mint initial is "P" and the assayer's initial "D". Both punches are similar to those of j.

l. From the same coin as k. Here is an example of the effect of double-striking on hand-hammered coins. The lion and castle on k., struck with a single blow did not show a double image. With l. the blank had moved enough on the second

blow of the hammer to cause the effect shown in the illustration. Variations so caused make it almost impossible to classify hammer-struck coins into die varieties.

m. Philip II, four reales, Mexico City Mint. Assayer: "O." One half of a hoard of twenty pieces were made with these punches, while the other half were made with those shown as n. Compared very closely the differences between them can be seen. Which of the two sets were earlier is an unsolved problem.

o. Philip III, four reales, Mexico City Mint. Assayer: "F." The lion is really rampant. One hind leg has been added to the lion with a separate punch. Note that the tail of the lion is joined to the back of the head. This was probably a device to add strength to the punch and to prevent the tail from breaking off.

p. Philip III, one real, Mexico City Mint. Assayer: "F." Dated 1610. Note that the castle is simpler on the one real than larger one on the four reales, as in o.

q. Philip IIII, eight reales, Mexico City Mint. Assayer: "P." Dated 1655. For a large coin, the castle is very simple. The lion, which resembles a mouse with a round front paw like a boxing glove, appears only on the coins of Philip IIII for Mexico.

r. Charles II, eight reales, Lima Mint. Assayer: "R." Dated 1688. As usual on coins of both Lima and Potosí of the period, the castle has no base line below the door. The lion has a head which resembles that of a crocodile.

s. Philip IIII, eight reales, Santa Fé de Bogotá Mint. Dated 1656. The lion is frog-like in appearance with a decorative tail which bends over onto itself and has a leaf-like end.

t. Charles II, eight reales, Potosí Mint. Dated 1685. The lion on the Potosí coinage is definitely different from that of the Lima, Bogotá and Mexico coinage. He was cut crudely but with strong detail which is distinguishable even when only a part of his figure is well struck.

w. From the Salbach Sale Catalogue, No. 3235. Counterfeit eight reales, Mexico City Mint, Assayer: "D." Dated 1618. A beautiful oriental fabrication. Neither the pagoda nor the dragon resemble Spanish Colonial motifs.

x. Charles II, two reales, Potosí Mint. Dated 1686. Punches of the same design but smaller than those used on larger pieces (see t.). The castle punch is broken at the left side. The lion is shown both in outline and with detail to demonstrate how easily he can be distinguished even when worn smooth.

y. Philip V, two reales, Lima Mint. Dated 1718. On comparison, the differences between this lion's silhouette and that of x. will be seen readily.

z. Philip V, two reales, Lima Mint. Dated 1730. The tail is curved around and joins the head of lion. The lions of Lima coins of Philip V strongly resemble squirrels with thick tails. The doors of the castle on both y. and z. are small and flat. The windows are rendered with mere dots.

ROBERT I. NESMITH

## ADDITIONAL NOTES ON THE EARLY COINAGE OF TRANSOXIANA

Since the publication of *Notes on the Early Coinage of Transoxiana*, Numismatic Notes and Monographs, No. 113 (New York, 1949),<sup>1</sup> some new materials have come to hand which add to our knowledge of the numismatic history of pre-Islamic Transoxiana.

The first book is the monumental work of S. P. Tolstov, *Drevnij Xorezm* (Moscow, 1948), 352 pp. and 87 plates. The second is the more popular presentation of the same material, but with some additions, his *Po Sledam Drevne Xorezmijskoj Civilizacii* (Moscow-Leningrad, 1948), 325 pp. Finally, the article by M. M. Javič, "Zamečanija o neissledovannom sredneaziatskom alfavite," *Trudy Otdela Istorii Kultury i Iskusstva Vostoka*, 4 (Leningrad, 1947), 205-224, is of special interest to our subject.

In chapter four of *Drevnij Xorezm* Tolstov discusses "the coins of the Siyavušids and the Afrigids," with plates 84 and 85 which unfortunately have poor reproductions. Tolstov studies the markings (mint marks or engraver's signs) on the Khwārazmian coins and comes to several interesting conclusions. The analogies of the markings on the Khwārazmian coins and pottery with the signs on the coins of the Bosphoran Kingdom of South Russia and the Crimea (first to third centuries A. D.) on the one hand, and with the Hephtalite and Kushan coins on the other, are indeed striking. Even the special marks or signs used by the Varangian rulers of Kiev seem to point to an adaptation of prototypes from the East.

<sup>1</sup> Hereafter referred to as *Notes*.

The fact that the Khwārazmian signs have been found on pottery as well as coins would indicate that we have here a dynastic seal or coat of arms. A study of the *Wappenkunde* of the Turks and other peoples of Central Asia, similar to the work of Mayer on Saracenic heraldry, is a much needed desideratum.

Tolstov concludes that there was a connection between the ruling families of Khwārazm, the Massagetae-Saka-Sarmatian dynasty of the Bosphoran kingdom, the Kushans, the Hephtalites, and the Arsacids of Iran. This is an attractive hypothesis but the available material does not warrant such a generalization.

After a study of a greater number of coins, Tolstov proposes additions and emendations to his readings of the coin legends reported in *Notes*, 20. The name ترکبشه, the Muslim form of which was 'Abdallāh, is now emended by Tolstov to read ترککنه, which he compares with Τουρκλανθης (*sic* Τούρξανθος), the name of the Turkish prince mentioned by the Byzantine historian Menander (Cf. G. Moravcsik, *Byzantinoturcica*, 2 [Budapest, 1943], 276). The Khwārazmian legend (*Notes*, 20) is read as 'bdwl MLK' "Abdallāh shāh," a reading which is open to question. On several class A coins (*Notes*, 18) Tolstov finds a legend which he reads 'purg, which is the first ruler in the list of Khwārazmian kings given by al-Bīrūnī, افرنغ. A different legend on several coins of the same class is read as *wrθwmx*, the ارتموخ of al-Bīrūnī. In short, Tolstov has succeeded in identifying most of the coins as issues of the rulers of Khwārazm in pre-Islamic times. On copper coins (class AA, α) Tolstov reads the legend *K'ng MR' MLK' 'skwčwr prrk* "lord king of Kang, Askačubar, blessing." I know of one parallel in Sogdian with the two titles *MR'* and *MLK'* fol-



lowing one another, but this reading is open to doubt. The name *Kang*, according to Tolstov, is the K'ang chü (Medieval: *k'ang k'wo*) of Chinese sources, another name for the state of Khwārazm. This identification, however, has been disputed by A. N. Bernštam; cf. his review of Tolstov's *Drevnij Xorezm* in *Izvetija Akademii Nauk, Serija Istorii i Filosofii*, 6 (1949), 93–6. In his writings Bernštam has sought to equate the Chinese *K'ang chü* (or *kü*) with the Ili valley in the present Kirghiz SSR.

Tolstov reached four general conclusions in his study of the coins of Khwārazm. First, a study of the markings on the coins of all classes shows that the information given by the Arabic and Chinese sources, meagre though it is, is correct in assuming that there was one dynasty, the Siyavušid-Afrigid, ruling in Khwārazm from the first to the eighth centuries A.D. Second, the assertion in Chinese annals that the ruling families of Khwārazm, Sughd, and Shāsh were related is confirmed by a study of the coins of the Kushans and Khwārazmians. Further, it would seem that the rulers of the Bosphoran kingdom were a branch of the ruling family of Khwārazm.<sup>18</sup> Third, the discovery of coins and silver goblets with Khwārazmian inscriptions on them in Eastern Europe, especially in sites along the Volga, indicates that the trade of Khwārazm with eastern Europe, well established for the tenth century A. D. and later, was flourishing at a much earlier date. Finally, the preservation of the ancient coinage of Khwārazm into the eighth century A. D. shows the independence and continuity of Khwārazmian culture. The adoption of Sasanian symbols on the coinage of Khwārazm, however, indicates the strong influence of the neighboring great power.

These same theses are developed by Tolstov in his more

<sup>18</sup> This is not supported by V. F. Gajdukevič in his recent book *Bosporskoe Carstvo* (Moscow-Leningrad, 1949).

popular work, "On the traces of ancient Khwārazmian civilization." In this book he proposes the existence of a Khwārazmian-Khazar state extending far into South Russia and into Central Asia just before the Arab conquests. Needless to say, the works of Tolstov are exceedingly important for the early history of Central Asia. His readings of the coin legends, however, are not convincing. In addition to the remarks I made in *Notes*, it should be noted that the reading 'bdwl MLK' would probably render 'Abd al-Malik, rather than 'Abdallāh, if the reading 'bdwl were satisfactory, which it is not.

Further work on the Khwārazmian coins must await the results of the decipherment of the documents in Khwārazmian which have recently been found. This discovery of documents (on wood and parchment) written in the Khwārazmian language and alphabet, the latter derived from the script of the Parthians and ultimately from Aramaic, has opened new vistas in Central Asian studies. Cf. *Archeology*, 54 (1950), 68, and *The New York Times*, October 2 (1949), 23.

The article by Javič, on an unknown alphabet of Central Asia, is concerned with the coins of Bukhara. Javič revives the old reading of the last word of the legend as *k'n*, the ruler of Bukhara mentioned by Naršaḫī, but he offers no reading for the first part of the legend.<sup>2</sup> The main contribution of his article is the indication that we have the same alphabet on several silver goblets from the Hermitage museum as is found on the coins of Bukhara. I hope to deal with these inscriptions, and others not mentioned by Javič, elsewhere. In conclusion, a few words about the various alphabets employed on the pre-Islamic coins of Transoxiana may be offered.

<sup>2</sup> One word discussed by Javič, the *اهل بخارى* of al-Bīrūnī, *Atbār al-bāqiya*, ed. E. Sachau (Leipzig, 1876), 69, is to be read *بخارىک* *pwryrk* "Bukharans." J. Marquart, "Untersuchungen zur Geschichte von Evan," *Philologus, Supplementband*, 10 (Leipzig, 1905), 99, note 3, reads this as *čāryak* "a town quarter."

From the material of Tolstov, Javič and others, I think one may come to the following conclusions:

1. There were three related scripts in use in Transoxiana at the time of the Arab conquests. On the coins of Sughd and Samarqand we find a cursive script almost identical with the cursive script of the Buddhist documents from Chinese Turkistan. The coins of Bukhara (the so-called "Bukhar Khudāh" coins), however, retained a more archaic non-cursive script until it was replaced by Arabic. Finally, in Khwārazm a third script was used, unlike the other two, but having affinities with both. Tolstov shows that the script of Khwārazm evolved from inscriptional characters to a cursive script.

2. It seems likely that the script on the coins of Bukhara was not in common use by the people of Bukhara at the time of the Arab conquests, for at that time we know that cursive scripts were used in Chinese Turkistan and probably also in Transoxiana.<sup>3</sup> Furthermore, the people of Bukhara probably could not even read the legends on their coins; witness the degeneration of the legend and the misreading with *k'n*. The alphabet on these "Bukhar Khudāh" coins is very close to the Sogdian alphabet of the "Old Letters," dating from the fourth century A. D. (Cf. Henning *apud* Frye, *Notes*, 27.)

It is probable that the older non-cursive, inscriptional alphabets were used in Khwārazm, Bukhara and Samarqand as archaic survivals solely for coins and inscriptions, while

<sup>3</sup> Sogdian words in the cursive (Buddhist) script have been found painted on potsherds from Merv; cf. A. Freiman, "Sogdijskaja nadpis iz Starogo Merva," *Zapiski Instituta Vostokovedenija*, 7 (1939), 296–302. It is also of interest to note that a potsherd from the excavation of Tali Barzu, near Samarqand, had several letters of the non-cursive script of the "Old Letters" incised upon it. Cf. A. Freiman, "Drevnejšaja sogdijskaja nadpis," *VDI* (1939), no. 3, 135. Does this indicate that both scripts were in use at the time of the Arab conquests, one (the archaic non-cursive) used for engraving and inscriptions, while the other (the Buddhist cursive) used for writing? The evidence of the "Old Letters" would tend to support the conclusion that inscriptions with the non-cursive script are older and not contemporary with the cursive (Buddhist) script.

cursive scripts were employed for everyday use in the seventh century A. D.

3. It would seem that the script of Khwārazm was derived directly from the Pahlavik of Arsacid Iran, while the scripts of Bukhara and Samarqand (the latter is cursive Sogdian) had different lineages, perhaps going back to Achaemenid times.

4. The last remnants of a debased Greek script are found on the coins of the Hephtalites, after which all traces of Greek vanish from Central Asia.

#### ADDITIONS AND CORRECTIONS TO *NOTES*

p. 22, note 86: This inscription has been read by Henning as follows:  $\gamma\gamma\delta$  30  $\delta\rho\gamma\mu\gamma k$  “- own 30 drams.”

p. 26, line 20: Delete “either from the last decennium of the second century.” W. B. Henning, “The Date of the Sogdian Ancient Letters,” *BSOAS*, 12 (1948), 615, has assigned the dates 312 and 313 A. D. to the letters.

p. 29: Further confirmation of the reading  $p\omega\gamma'r\ \gamma\omega\beta$  “King of Bukhara,” is found in the inscription on the lip of the silver kettle now in the Hermitage museum. Cf. Leonid Matzulewitsch, *Byzantinische Antike* (Berlin, 1929) 3, no. 3, and p. 25, fig. 4, also M. M. Javič, *op. cit.*, 210. The inscription  $\omega\omega\ \omega\omega\ \gamma\omega\omega\omega$  is to be read  $p\omega\gamma'r\ \gamma\omega\beta\delta\omega\gamma$  (?), “King of Bukhara  $\delta\omega\gamma$  (?).”

p. 32 Sogdian Coins: After the publication of *Notes*, I received a copy of the article by O. I. Smirnova, “Novye dannye po istorii Sogda,” *VDI* (1939), no. 4, 97-102, in which the coins with cursive Sogdian legends are divided into two classes. One group is distinguished by the square hole in the center of each coin (similar to Chinese coins), while the second group has no hole but the face of a ruler, similar to the Indo-Iranian coins. (I am unable to discover to which Indo-Iranian coins Smirnova refers.) On both classes of coins the following

titles have been read: *MR'Y* "lord," *γωβω* "king," and *βγγ* "god, *Herr*."

Among the coins of the first class are three pieces in the Hermitage museum with Chinese characters 開元通寶 *k'ai yüan tung pao* "coin of K'ai yüan" written on the obverse. (*sic: tung pao* does not mean "coin;" it is rather a proper name or title and cannot be translated. -RNF)<sup>3a</sup> On the reverse is the Sogdian word *βγγ*. Chinese coins of the K'ai yüan period first appear in the year 621, so the Sogdian coins must date after this.

On a unique coin of the Hermitage of the first class, is a Sogdian inscription read as *twry'γ MLK'* "king *twry'γ*." A unique coin of the second class, preserved in the state museum of Samarqand, has a Sogdian inscription read as *mtčyr MR'Y* "lord *mtčyr*." This coin has a mark on it similar to the mark on the coins of Tarxūn and Bγšwm'n, rulers of Sughd. A like sign is found on the coins of Khwārazm, and also on the Kufic coins of al-Ashās ibn Yaḥyā, governor of Samarqand for the 'Abbāsids in 143-4/760-1.

According to Chinese sources, the ruler of Sughd, Ugurak (Γurek) was defeated by the Arabs, and in 719 A. D. turned to the T'ang court for aid, which, however, could not be given. In 731 the same ruler requested the grant of the title "king of Ts'ao" 曹 (Istixan) for his son T'u ho 咄曷 (Medieval: *tš'xuet γát*) and the title "king of Mi" 米 (Maimury) for another son Mo cho 默啜 (Medieval: *mək tšwät*). This request was granted by the "son of heaven," and on the death of Ugurak, his son T'u ho succeeded him as the ruler of Samarqand.<sup>4</sup> The name *twry'γ*, found on the coin mentioned above, is the Sog-

<sup>3a</sup> These coins were first studied by K. Donner, "Sur l'origine de l'alphabet turc du Nord de l'Asie," *Journal de la Société Finno-Ougrienne*, 14 (Helsinki, 1896), 33.

<sup>4</sup> The information from Chinese sources is taken from E. Chavannes, *Documents sur les Tou-Kiue (Turcs) Occidentaux* (St. Petersburg, 1903), 136, 204.

dian original of the Chinese T'u ho, and is probably of Turkish origin. The second son of Ugurak, *mtčyr*, must be the Mo cho of Chinese sources. This name is also Turkish, since it occurs as the name of one of the rulers of the northern Turks. (It is probably the مختار of Ṭabarī, 2, 1523 -RNF.) Since Ugurak died in 738, according to Chinese sources, the coin of T'u ho must have been minted after that date.

In another article of O. I. Smirnova, "Sogdijskij monetnyj kak novyj istočnik dlja istorii Srednej Azii," *Sovetskoe Vostokovedenie*, 6 (1949), 356-357, her studies are developed. She states that a classification of the Sogdian numismatic material reveals that coins of the Chinese type have been found only in Samarqand and vicinity. Five rulers of Samarqand have been identified by their coins. One, ruler of Samarqand in 696, is *twk'sp'δ'k MLK'* "ixšid \*tōkāspadāk," the *tuok sâ puât d'iei* of Chinese sources.<sup>5</sup> Study of the coins has confirmed the accounts of the rulers of Samarqand given by the Chinese and Arabic sources.

Again the absence of plates makes it impossible to check the readings of Smirnova. Suffice it so say that the archaeological discoveries of the Soviet scholars in Central Asia will shed much light on the little-known pre-Islamic history of this area of the world.

p. 36: In the *XXV Bjulleten sredneaziatskogo gosudarstvennogo universiteta*, vypusk 23 jubilejnyj (Tashkent, 1945), 190, I found a notice of a thesis prepared at the Central Asian University on the Musaiyabī dirhems, entitled "O proisxoždenii diržemov Musejjabi, 1944 g." This thesis has not been published, but the very brief summary of the contents indicates that it deals with the entire picture of the early Islamic coinage in Transoxiana.

<sup>5</sup> Cf. my forthcoming article "*Tarxūn~Türxūn* and Central Asian History," in the *Harvard Journal of Asiatic Studies*.

The Persian *Ta'riḫ-i-Niṣapūr*, MS Bursa, Hüseyin Çelebi, *Tarih* 18, foll. 65b, has a brief notice on the supposed three brothers, Muḥammad, Ghiṭrīf, and Musaiyab, who struck coins in Transoxiana. I hope to discuss this elsewhere, after the publication of the Persian text of the history.

p. 46, note 7 *msnk*: Another possibility for the interpretation of this form is that it is a cross form of *mis* "copper" and *'nk* "tin." The latter word is found in New Persian and Arabic as *ānuk*, Akkadian *anaku*; cf. F. W. Albright in the *American Historical Review*, 55 (1950), 347, and R. Campbell Thompson, *A Dictionary of Assyrian Chemistry and Geology* (Oxford, 1936), 121-2.

p. 48: To the detailed remarks on the word *dirhem*, δραχμή, by H. W. Bailey, "Indo-Iranica II," *BSOAS*, 13 (1949), 128-9, add the Sogdian form *drymy*, found in A. Freiman, "Datirovannye sogdijskie dokumenty s gory Mug v Tadžikistane," *Trudy Instituta Vostokovedenija*, 17 (1936), 153.

p. 49, note on *pishiz*: In a letter dated April 3, 1949, Professor Henning says, "The word *pišiz* means properly 'scale (of a fish)'; the use of the word for 'a small coin' is strictly speaking misuse; it originated, as has long been recognized, in the barbarian (but ancient) confusion of φόλλις with πολλίς 'scale' (which is also reflected in the Arabic loan-word *fals* which represents both). The Persian word kept, beside the meaning 'coin', the old meaning 'scale', which is expressed by the lexicographer you quote by *diram-i-mābī* 'fish's drachm'; this in Persian means 'scale.' Sa'dī's verse, I suppose, should mean: To give a great amount of something is not necessarily generosity. To give a *dang* out of a single *diram*, or a *pišiz* out of a single *dang*, (that is generosity)."

p. 49 *dang*: G. Cameron, *Persepolis Treasury Tablets* (Chicago, 1948), 132, has found the word in an Elamite tablet, *da-na-kaš*, which is equated with OP \**dānaka*, Gr. δανάκη(s), a barbarian coin worth a little more than an (Attic) obol.

In the *Frabang-i-Pahlavik*, ed. H. F. J. Junker (Heidelberg, 1912), ch. 30, p. 66, the series of coins (or weights) of Sasanian times is given: *pišīz-1*, *pišīz-2*, *M<sup>1</sup>-1*, *M<sup>1</sup>-2*, *M<sup>1</sup>-3* or one-half *dīnār*, *M<sup>1</sup>-4*, *M<sup>1</sup>-5*, *dīnār*, *yāmak dast-1*, *dast-2*, *dast-3*, *dast-4*, *dast-5*, *dast-6*.

*M<sup>1</sup>* is the ideogram for *dāng*, according to the *Frabang*, ch. 16, p. 56. The *dāng*, then, is one-sixth of a *dīnār*. *M<sup>1</sup>* was unclear, but in a letter of April 26, 1949, Professor Henning wrote: "This is the abbreviation of an ideogram, on the same

line as ܕܥܐ - *gandum* 'wheat,' ܕܥܐ - *yav* (جو) 'barley,' etc., representing ܠܐ (= ܠܥܝܢ) and ܠܐ (= ܠܥܝܢ) respectively. ܠܐ - *M<sup>1</sup>* thus represents a suitable Aramaic word which begins with *m*-; perhaps ܡܢܝܐ *manya*, which is used for a small coin (e. g. in the Syriac *Mark* 12. 42, where 'mite' in English.)" The word proposed by Henning is probably Greek *μνᾶ*, Latin *mina* (cf. A. Walde, *Lateinisches Etymologisches Wörterbuch* [Heidelberg, 1948], 2, 89). More likely is the Aramaic, ܡܥܬܐ, *mā'ā* or *mā'Θā*, "the sixth part of a *dīnār*, as above (cf. M. Jastrow, *A Dictionary of the Targum* [New York, 1926], 813).

The translation of *yāmak dast* is "a suit of clothes," which can hardly be the meaning here. The R. P. De Menasce, in a letter of March 18, 1949, suggested the interpretation *ḵāmak*, meaning "glass," i. e. as indicating that *dast* refers to measures of capacity, whereas the other words refer to weight.

The *Frabang-i-Pahlavik* contains many enigmas and much work needs to be done before answers can be found to many of them.

RICHARD N. FRYE



## ABARQUBĀDH, A NEW Umayyad MINT

Among the Umayyad coins in the collection of the late Walter L. Wright, recently acquired by the American Numismatic Society, is an unpublished dirhem<sup>1</sup> dated 83 A. H. (702 A. D.) and bearing the mint name ابرقاد. Theoretically these letters can be read in a great many different ways but there can be little doubt that the correct reading is ابرقاد.



Abarqubādh, a town (and district) located in 'Irāq, east of the Tigris between Wāsiṭ and Baṣrah and not far from al-Madhār. There is, to my knowledge, only one other dirhem of this mint, dated 96 A. H., a specimen formerly in the collection of Ahmed Ziya of Istanbul<sup>2</sup>. The following note will attempt to justify the reading and identification of this very rare mint name.

The early Arab geographers were familiar with a locality in the lower Tigris region named Abazqubādh. In the ensuing

<sup>1</sup> Diameter, 26 mm.; weight, 2.66 grams. Professor Wright acquired all his coins in Istanbul.

<sup>2</sup> *Meskūkāt-i Islāmiyyeh Taqvīmi* (Constantinople, 1910), no. 61. In the catalogue the name is spelled ابرقاد and transcribed "Ebd-qubad," but in the list of mint towns, p. 164, it is more correctly given as ابرقاد (transcribed "Ebricubad"). The author made no attempt to reconcile these readings or to identify the mint.

paragraphs it will be necessary to refer to this locality as Abazqubādh, rather than as Abarqubādh, because the spelling with *zā'*, in place of *rā'*, is the one most commonly, though mistakenly, adopted by the Arab writers. Ibn Khordādhbeh (*ca.* 850 A. D.) tells us that the *kūrah*, or district, of Astān<sup>3</sup> Shādh Bahman consisted of four *ṭassūj*, or sub-districts (probably based on irrigational divisions), to wit: Bahman Ardashīr, Maysān, Dasht-i Maysān, and Abazqubādh<sup>4</sup>. Qudāmāh (*ca.* 928 A. D.) repeats the same information.<sup>5</sup> Al-Ya'qūbi (891 A. D.) speaks of Abazqubādh as a *kūrah* under the administration of al-Madhār, a town on the Tigris, the capital of the district of Maysān<sup>6</sup>. The great Yāqūt (d. 1229 A. D.), summing up the reports of his predecessors, describes Abazqubādh as a place lying between Baṣrah and Wāsiṭ and not far from Maysān and Dasht-i Maysān, associated in the chronicles of the early Arab conquests with al-Madhār.<sup>7</sup> Unfortunately he confuses the issue somewhat by introducing an alleged statement by Ibn al-Fakīh and others to the effect that Abazqubādh was the name given to the *kūrah* of Arrajān (in Fārs), where the Sassanian king Kawādh I (488–531 A. D.) settled captives from Amid and Mayyāfāriqīn;<sup>8</sup> but he redeems himself by expressing doubt that the identification with Arrajān is correct, and of course he concludes with the cautious and reverent *caveat* that Allāh knows best. Actually, the locality identified with Arrajān by Ibn al-Fakīh (*ca.* 903 A. D.) is Barqubādh, not

<sup>3</sup> Also transliterated *istān* (Yāqūt), or, in Middle Persian, *ōstān* (?).

<sup>4</sup> Ibn Khordādhbeh, *Kiṭāb al-Masālik wa'l-Mamālik*, BGA VI, p. 7.

<sup>5</sup> Qudāmāh, *Kiṭāb al-Kharāj*, BGA VI, p. 235.

<sup>6</sup> Al-Ya'qūbi, *Kiṭāb al-Bulḍān*, BGA VII, p. 322.

<sup>7</sup> Yāqūt, *Mu'jam al-Bulḍān*, ed. Wüstenfeld, I, pp. 90–91. He also gives the variant form Bazqubādh (I, p. 605).

<sup>8</sup> Yāqūt, *loc. cit.* and I, p. 194, IV, p. 707. In the latter passage confusion is twice confounded by the introduction of a further erroneous identification of Abazqubādh with al-Istān al-Ālā, which was a *kūrah* west of Baghdad in the Sawād (Yāqūt, I, p. 241). Obviously there is no connection.

Abazqubādh, although the editor compares the former version of the name with the latter, as given in Yāqūt and elsewhere.<sup>9</sup>

As for the historians, it is sufficient to quote Balādhuri (d. 892 A. D.) to confirm the early geographers and to bear out Yāqūt's assertion that Abarqubādh (Abazqubādh) is associated with Maysān, al-Madhār, etc., in the accounts of the Arab conquest. In the *Futūḥ al-Buldān* several traditions are recited which make it clear that Abarqubādh (correctly spelled) was taken in 14 or 16 A. H. (635 or 637 A. D.) by 'Utbah b. Ghazwān immediately after Dasht-i Maysān and at approximately the same time as al-Ubullah and other contiguous localities.<sup>10</sup> In one passage Abarqubādh is compounded with Maysān, i. e. "Abarqubādh of Maysān."

There can, therefore, be little doubt that Abarqubādh (Abazqubādh) lay on the lower Tigris and in the vicinity of other early Umayyad mints established in conformity with the existing Sassanian administrative organization. Thus, with reference to the immediate district under consideration, we have dirhems of the reformed type struck at Maysān (79, 80, 83, 93, 95-97 A. H.), Dasht-i Maysān (80 A. H.), al-Madhār (96 A. H.)<sup>10a</sup> and Abarqubādh (83 and

<sup>9</sup> Ibn al-Fakīh, *Kitāb al-Buldān*, BGA V, p. 199. Yāqūt's full account is abridged in the *Marāṣid al-Iṭṭilā'* (ed. Juynboll, I, p. 14) under the entry ابرقباد: "one of the *ṭassūj* of al-Mudhār between al-Baṣrah and Wāsiṭ [correct]; and it is said that it is the *kūrah* of Arrajān in its entirety between al-Ahwāz and Fārs [mistaken]." The name is perhaps unwittingly correctly spelled by the copyist, but its alphabetical order clearly indicates that the traditional, though erroneous, spelling "Abazqubādh" is intended. This conclusion is borne out by another entry in the same work, Bazqubādh, where we read "that is, Abazqubādh, already mentioned." Cf. the Latin commentary on the first passage in Vol. IV, where the proper reading of the name is hinted at.

<sup>10</sup> Ed. de Goeje (Leiden, 1866), pp. 342, 344. Cf. Ṭabari, I, p. 2386; cf. Leone Caetani, *Annali dell'Islām*, III, pp. 304, 308, 646, 784.

<sup>10a</sup> The present article had already gone to press when I learned from Dr. John Walker that Umayyad dirhems of al-Madhār do not exist. The supposed mint-name "al-Madhār", Dr. Walker writes me, is due to a misreading of al-Furāt (or al-Farāb), as is entirely clear if one examines the plates in S. Lane-Poole, *Catalogue . . . Guubrie*, no. 137 = *Berlin I*, no. 400.

96 A. H.). The identity of these various place names with the corresponding earlier Sassanian settlements has been discussed more than once. Marquart,<sup>11</sup> in attempting to identify the four districts of the province and episcopate of Mēshān (= Ōstān Shādh-i Bahman = Maysān), concluded that Abazqubādh (*sic*) was the older Neshar Gūr, and M. Streck in his long and very learned article on Maysān<sup>12</sup> suggests that Nehar Gūr (Gūr) was probably in the vicinity of Ḥuwaiza, but believes that it is impossible to say whether Nehar Gūr corresponded with the *ṭassūj* of "Abazqubādh".<sup>13</sup>

It is not necessary to consider further the confusion of "Abazqubādh" with a name synonymous with or related to Arrajān<sup>14</sup>, for this misidentification has now been conclusively laid to rest.<sup>15</sup> Furthermore, Dr. John Walker has ably demonstrated that the alternate name of Arrajān was not Abazqubādh (or the like) but Birāmqubadh, for which we have a mint striking dirhems of the reformed type (79, 80, 90, 93, 95 A. H.) as well as a probable Arab-Sassanian mint-monogram equivalent, BRM (54 and 58 A. H.).<sup>16</sup> Walker's discussion of Birāmqubadh = "Bezmqubadh" ("Narimqubadh," etc.) entirely supersedes Zambaur's,<sup>17</sup> but it should be emphasized here that the latter's identification of "Bezm-

<sup>11</sup> J. Marquart, "Ērānšahr nach der Geographie des Ps. Moses Xorenac'i," in *Abhandlungen der K. Gesellschaft der Wissenschaften zu Göttingen*, Phil.-Hist. Klasse, NF, Bd. III, nr. 2 (Berlin, 1901), pp. 40-42.

<sup>12</sup> *Encyclopaedia of Islām*, s. v. Maysān.

<sup>13</sup> In this conclusion he agrees with H. H. Schaeder, "Ḥasan al-Baṣrī," *Der Islam*, XIV, 1925, p. 37.

<sup>14</sup> Cf. *Encyclopaedia of Islām*, s. v. Arrajān.

<sup>15</sup> Cf. also P. Schwarz, *Iran im Mittelalter nach den arabischen Geographen*, III (Leipzig, 1912), p. 112 and footnote 13, supporting Yāqūt's doubts about the identification with Arrajān. M. Streck at one time attempted to resolve the difficulty by suggesting that there were two localities named Abazqubādh (*Die alte Landschaft Babylonien nach den arabischen Geographen* (Leiden, 1900), I, pp. 15, 19).

<sup>16</sup> John Walker, *A Catalogue of the Arab-Sassanian Coins* (in the British Museum), London, 1941, pp. cxiii-cxvi.

<sup>17</sup> Eduard Zambaur, "Neue Khalifenmünzen," in *Numismatische Zeitschrift*, 1922, pp. 4-5.

qubādh" with "Abezqubādh" is mistaken. Of course, neither he nor Walker (whose inquiry into the mint of Birām-qubādh is complicated by the introduction of the actually unrelated "Abazqubādh" factor) knew of the separate existence of the Umayyad mint represented by the coin under discussion here.

It remains to establish the reading Abarqubādh in preference to "Abazqubādh." Streck, in the article on Maysān referred to above, spells the name with the "z", in conformity with the majority of the Arab writers. However, in a shorter article on the name itself<sup>18</sup> he adopts the spelling with "r", interpreting the first element of the name, "abar," as the Pahlevi and modern Persian word *abr*, "cloud."<sup>19</sup> Here he follows, but I believe misinterprets, Theodor Nöldeke who as early as 1879 pointed out that the correct spelling was probably Abarqubādh.<sup>20</sup> But Nöldeke did not suggest that the first element was *abr*, "cloud" (which makes no sense), nor can I agree with Streck when he states, but without substantiation, that there are many Persian place-names composed with this element. Just what place names he had in mind it is impossible to determine. Two come readily to mind: Abrashahr and Abarqūh, but neither of these have anything to do with *abr*, "cloud". In my opinion "Abarqubādh," as the reliable and early Balādhuri has it, is the correct reading (*abaz* means nothing); and as for the etymology, the first element of the name is Persian *abar* = *bar*, "up, above", Pahlevi *apar*, Pazend *awar*<sup>21</sup>, and the construction of the name would be

<sup>18</sup> *Encyclopaedia of Islām*, s. v. Abarqobādh.

<sup>19</sup> Cf. *afṣr*, H. S. Nyberg, *Hilfsbuch des Pelevi*, I (Uppsala, 1928), p. 32, II (1931), p. 1.

<sup>20</sup> *Geschichte der Araber und Perser zur Zeit der Sasaniden* (Leiden, 1879), p. 146, note 2.

<sup>21</sup> Geiger u. Kuhn, *Grundriss der Iranischen Philologie* (Strassburg, 1895-1901), I<sup>1</sup>, pp. 310, 318, I<sup>2</sup>, p. 160. Cf. Nyberg, *op. cit.*, I, p. 32, II, pp. 13-14. *Bar* and *abar* are alternative forms in modern Persian: cf. *Grundriss*, I<sup>1</sup>, p. 318; Steingass, *A Comprehensive Persian-English Dictionary* (London, 1930), p. 166. Incidentally Steingass actually has an entry *ابر قباد*, but defined according to the old mistaken tradition as a city between Fārs and al-Ahwāz.

quite analogous to such well-established place names as Bih-qubādh (Weh-Kawādh), Weh Amidh-i Kawādh, etc. The construction is strange to our ears but probably was not to the Sassanians, and the meaning would be "the lofty (place, but not necessarily topographically) of Kawādh." I find it difficult to accept Marquart's contention<sup>22</sup> that ابرقباد derived from ایزد قباد کرد, "built by Izad Kawādh," a town listed by Ḥamzah b. Ḥasan al-Iṣbahānī among those founded by Kawādh.<sup>23</sup>

The lack of a suitable Pahlevi monogram on Sassanian and Arab-Sassanian dirhems appears to indicate that there was no mint at Abarqubādh previous to the coinage reform of the Caliph 'Abd al-Malik. The monogram APR (APRSH etc.) clearly stood for Abrashahr, as Walker has shown.<sup>24</sup> There is furthermore no MDM or QDM, which would be the expected ideogram for *apar*.<sup>25</sup> Walker lists an unidentified Arab-Sassanian monogram KVAT(?);<sup>26</sup> but an abbreviation or spelling out of the second element of the name is scarcely likely. This apparent lack of an equivalent Sassanian or Arab-Sassanian mint-monogram is paralleled in the case of several neighbouring "reformed coinage" mints, *e. g.* al-Furāt, Kaskar, Maisān, etc.,<sup>27</sup> and it would seem that while the location of these obscure and short-lived mints was dictated by the inherited scheme of Sassanian administrative divisions, the actual establishment of mints in many of these localities did not take place until after the introduction of the purely Arab type of coinage.

GEORGE C. MILES

<sup>22</sup> *Ērānshahr*, p. 41. Ernst Herzfeld, "Khorasan" (*Der Islam*, XI, 1921), p. 150, adopted this interpretation.

<sup>23</sup> *Hamzae Ispahanensis Annalium Libri X* (ed. Gottwaldt, Leipzig, 1844), p. 57. As Ḥamzah locates the place in the Sawād, Marquart and Herzfeld are probably correct in identifying it with "Abazqubādh," but I suspect that the form of the name is the result of "pseudo-etymologizing" on the basis of the widely-accepted misspelling of Abarqubādh.

<sup>24</sup> *Op. cit.*, pp. ci, cvi.

<sup>25</sup> Cf. Nyberg, *op. cit.*, II, p. 13; Geiger u. Kuhn, *Grundriss*, I<sup>1</sup>, p. 331.

<sup>26</sup> *Op. cit.*, p. cxxi.

<sup>27</sup> Cf. Walker, *op. cit.*, pp. cxl-cxli.

# THE SILVER COINAGE OF MAḤMŪD II STRUCK AT CONSTANTINOPLE

(SEE PLATES XVIII-XXI)

Because of its diverse types and denominations, it has been extremely difficult to classify and arrange the silver coinage of Maḥmūd II. In an attempt to provide a guide through the maze of the coinage's difficulties the following notes have been prepared. They are based on the collection of the American Numismatic Society, which has a nearly complete set of Maḥmūd's types with many dates and varieties represented within the types.

The unit denominations of Maḥmūd II had their origin in earlier reigns. Suleymān II (A. H. 1099-1102) issued the first large silver coins of the Ottoman Empire. These were the *ghurush* or *piastre* of 40 para, 40 mm. in diameter, weighing 297 grains, and the *zolota* of 30 para, 33 mm. in diameter, weighing 233 grains. These two denominations developed into a double system of coinage running concurrently; one being the multiples and fractions of the *ghurush* and the other those of the *zolota*. These systems lasted without much change until the time of Maḥmūd II and were finally supplanted in the sixth year of 'Abd ul-Medjid I (A. H. 1255-1277) by the silver *medjidiyeh* of 20 *ghurush*, weighing 373 grains, which lasted until the end of the Empire.

The denominations used during this period of 163 years were:

<i>altiliq</i>	—	6 <i>ghurush</i>
<i>üchlük</i>	—	3 „

<i>besklik</i>	—	5 <i>ghurush</i>
<i>yüzlük</i>	—	100 <i>para</i>
<i>ikilik</i>	—	80 „
<i>altmishliq</i>	—	60 „
<i>ghurush</i>	—	40 „
<i>zolota</i>	—	30 „
<i>yirmilik</i>	—	20 „
<i>onbesklik</i>	—	15 „
<i>onluq</i>	—	10 „
<i>besklik</i>	—	5 „
<i>para</i>	—	1 „
<i>aqcheb</i>	—	$\frac{1}{3}$ „

The weight of the *ghurush* varied to some extent from the time of Süleymân II to the first issue of Maḥmūd II. The weights given below are of actual specimens and are not theoretical standards.

Süleymân II	AH 1099-1102	297 grains
Aḥmed II	1102-1106	303
Muṣṭafa II	1106-1115	310
Aḥmed III	1115-1143	415
Maḥmūd I	1143-1168	371
‘Oṣmân III	1168-1171	365
Muṣṭafa III	1171-1187	306
‘Abd ul-Ḥamīd I	1187-1203	295
Selīm III	1203-1222	198
Muṣṭafa IV	1222-1223	199
Maḥmūd II	1223-1255	199.5

The weight of the units, as well as of their multiples and fractions, vary from the standard as much as 20 grains light; although with fine specimens the tolerance runs from 5 grains heavy to 10 grains light.



The reign of Maḥmūd II was fraught with war and internal disorder, which probably accounted for the continued inflation of his currency. The coinage for the first year, only, was struck in accordance with the standard of his two predecessors, Selīm III and Muṣṭafa IV. In this standard the *ghurush* weighed approximately 200 grains, with the other denominations in proportion. This initial coinage was followed by five distinct series of coins each of new design and reduced in standard. Using the first year *ghurush* of 200 grains as a constant for comparison, we have the following reductions:

In the regnal years 2–13 the *ghurush* weighed about 150 grains indicating a reduction in standard to three-quarters of year 1.

In the years 14–16 the weight of the *ghurush* was reduced to 100 grains or to one-half that of year 1. The *aqcheh* was discontinued.

In the years 16–21 the reduction resulted in a standard equal to about one-third of year 1.

At this time, in the years 21–22, an anomalous token coinage, Numbers 24 and 25, for the denominations of *ghurush* and *yirmilik*, was issued with the weights far below standard.

In the years 22–26 a new series, greatly reduced in fineness, with a radical change in design, was issued. The *ghurush* weighed approximately 50 grains or one-quarter of the original standard.

Finally, in the years 26–32, the six, three, and one and one-half *ghurush* series was added to the existing confusion. The weights indicate a reduction to one-sixth of those of year 1. The minor coins of the preceding group, Numbers 28–31, probably because their value was only token, were continued with the same design and weight. This final standard was continued for the first period of the reign of ‘Abd ul-Medjīd I.

The designs of the several types can be observed from the plates. There are only six legends used on either obverse or reverse. Taken in order of occurrence they are:

#### 9 Numismatic Notes

A. In four lines the titles — Sultān of the two lands and Khāqān of the two seas, Sultān, son of the Sultān. The numeral for the regnal year is at the left in the third line.

B. The *tughra* or monogram of the Sultan, which deciphered, reads: Khān Maḥmūd, son of 'Abd ul-Ḥamīd, the Ever Victorious. Below, the mint and accession date, struck at Constantinople, 1223.

C. In four lines, the Sultān Maḥmūd, son of 'Abd ul-Ḥamīd Khān, may his kingdom continue, struck at Constantinople, 1223.

D. The *tughra* only.

E. The mint and dates only. Struck at Constantinople 1223, with the regnal year above.

F. The *tughra* with the word '*adli* 'Just' in the field to right.

The following catalogue records the general types, denominations, and weights with no attempt to list either all known dates or die varieties. Most of the types and denominations are illustrated on the plates. Specimens of Nos. 1-3 were not available; to illustrate the types of Nos. 1 and 3 coins of Muṣṭafa IV have been used. No. 16, which is similar to No. 17, and Nos. 35, 36 and 37, which are identical with Nos. 28, 29 and 30 have not been illustrated.

First Series — Year 1

No.	Denomination	Year	Obv. Legend	Rev. Legend	Weight in Grains
1.	Ghurush <sup>1</sup>	1	A	B	199.5
2.	Zolota <sup>2</sup>	1	A	C	148.5
3.	Onluq <sup>3</sup>	1	A	B	48.0
4.	Beshlik (5 Para)	1	A	B	22.1
5.	Para	1	D	E	5.7
6.	Aqcheh	1	D	E	2.3

<sup>1</sup> Ismā'il Ghālib. *Togvīm-i ineskūkāt-i 'oṣmāniyeh*. Constantinople, 1307. No. 985.

<sup>2</sup> *Op. cit.*, No. 995.

<sup>3</sup> *Catalogue of Oriental Coins in the British Museum*, Vol. VIII, London, 1883, no. 940.

## SILVER COINAGE OF MAHMÜD II

125

## Second Series – Years 2–13

<i>No.</i>	<i>Denomination</i>	<i>Year</i>	<i>Obv. Legend</i>	<i>Rev. Legend</i>	<i>Weight in Grains</i>
7.	Beshlik (5 Ghurush)	5	D	E	389.0
8.	Yüzlük	10	D	E	205.2
9.	Ghurush	7	A	B	146.2
10.	Yirmilik	3	D	E	69.0
11.	Onluq	2	A	B	43.5
12.	Beshlik (5 Para)	11	A	B	23.1
13.	Para	12	D	E	3.7
14.	Aqcheh	5	D	E	1.5

## Third Series – Years 14–16

15.	Ikilik (1st Design)	14	D	E	180.2
15a	Ikilik (2nd Design)	15	D	E	189.6
16.	Ghurush	14	A	B	94.4
17.	Yirmilik	14	A	B	39.5
18.	Onluq	14	A	B	23.1
19.	Beshlik (5 Para)	16	D	E	12.3
20.	Para	14	D	E	4.5

## Fourth Series – Years 16–21

21.	Altmishliq (Double Zolota)	16	A	C	93.7
22.	Zolota	17	A	C	48.0
23.	Para	19	D	E	1.9

## Anomalous Coinage – Years 21–22

24.	Ghurush	21	D	E	25.1
25.	Yirmilik	21	D	E	14.0

## Fifth Series – Years 22–26

26.	Beshlik (5 Ghurush)	22	F	E	250.0
27.	Yüzlük	23	F	E	115.3
28.	Ghurush	22	F	E	48.4
29.	Yirmilik	23	F	E	25.6
30.	Onluq	26	F	E	12.6
31.	Para	23	D	E	2.2

9\*

## Sixth Series – Years 26–32

<i>No.</i>	<i>Denomination</i>	<i>Year</i>	<i>Obv. Legend</i>	<i>Rev. Legend</i>	<i>Weight in Grains</i>
32.	Altılıq (6 Ghurush)	29	F	E	194.0
33.	Üçlük (3 Ghurush)	28	F	E	97.6
34.	Altmışlıq (1½ Ghurush)	29	F	E	47.7
35.	Ghurush <sup>4</sup>	28	F	E	51.0
36.	Yirmilik	32	F	E	20.3
37.	Onluq	31	F	E	10.2
38.	Para	31	D	E	3.4

WILLIAM L. CLARK

<sup>4</sup> *Op. cit.* no. 955: *ghurush* year 28 of Maḥmūd II, 51 grains.

## A BRONZE BLOCK FOR THE PRINTING OF CHINESE PAPER CURRENCY

(ca. 1287)\*

(SEE PLATES XXII-XXIV)

Some years ago the Chinese scholar and antiquarian Lo Chên-yü (1866-1940) published in his *Ssü-ch'ao ch'ao-pi t'u-lu* (1914) a representation of an inked squeeze of a bronze block in his possession which was said to date from the Chih-yüan era (1264-1294) of Kubilai Khan.<sup>1</sup> So far as is known this is the sole block of this date to have come to public attention until the current year. In the spring of 1949 another reached the Chinese Art Gallery of Allen J. Mercher, 119 East 57th Street, New York, N. Y. As there are certain differences between the two, and as the translation of the inscription (identical in both) was incomplete and slightly inaccurate, it seems worth while to bring the second to wider notice and study it afresh.

Immediately after his coming to power (1260) Kubilai decided to issue paper money. The history of his period, the *Yüan shih*<sup>2</sup> ch. 93, records that the first notes, some of paper, some of figured damask, were made from wooden printing blocks, and called Chung-t'ung currency. Bronze blocks replaced the wood in 1276. In the year 1287, however, because these notes had depreciated in terms of goods, *Chih-yüan ch'ao*, in eleven de-

\* The author wishes to acknowledge the valuable suggestions of Mr. Yü-ch'üan Wang, Curator of Far Eastern Coins at the American Numismatic Society where this paper was prepared, and now at the Peking Historical Museum.

<sup>1</sup> Reproduced in Andrew McF. Davis, *Ancient Chinese Paper Money as Described in a Chinese Work on Numismatics*, 1918, plate 156.

<sup>2</sup> Compiled in 1369-70.

nominations, were issued "from two strings to five cash... exchangeable with the Chung-t'ung notes at the rate of one string of cash (in new bills) for five strings in Chung-t'ung bills."<sup>3</sup> The block, illustrated herewith, cast for the highest denomination, may possibly be one of those fashioned in 1287 or shortly thereafter. A translation of the inscription runs as follows:

- Top line: "Precious note of the Chih-yüan period for general circulation.
- Center: Two strings.
- Left side: (in Mongol script<sup>4</sup>) Precious note of the Chih-yüan period.
- Right side: For general circulation in every circuit.
- Left and right: Denomination number..... order number.
- Bottom: The secretariat memorializes the throne, and it (the throne) authorizes the manufacture and printing of precious bills of the Chih-yüan period and decrees that they shall be dispatched by the appropriate office; moreover, they are to start being accepted by the government without limit in date and are to have currency in every circuit.

<sup>3</sup> See translation by Dr. Charles S. Gardner in Robert P. Blake, "The circulation of silver in the Moslem East down to the Mongol epoch," *Harvard Journal of Asiatic Studies*, II, December 1937, pp. 319-320.

<sup>4</sup> The script is the one invented in 1269 by the Tibetan adviser to Kubilai: 'Phags-pa (ca. 1239-1280). In this case it spells out the pronunciation of Chinese words.

Professor Francis W. Cleaves of Harvard University, to whom we referred this part of the inscription left undeciphered and untranslated by both Lo Chên-yü and Davis, has kindly informed us that the first line reads in transliteration *ǰi* (至) *'vèn* (元) *baw* (寶) *č'aw*, (鈔), and the second *ǰéu* (諸) *lu* (路) *t'un* (通) *biñ* (行).

The clerk<sup>5</sup> of the treasury of precious notes.  
The supervisor of the treasury of printing and  
manufacture. A counterfeiter is to receive  
capital punishment. He who is first to ap-  
prehend him shall be rewarded five *ting* (fifty  
ounces of silver) and the criminal's household  
property.

Chih-yüan... year... month... day.

Vice-commissioner of the treasury of precious  
notes.

Vice-commissioner of the treasury of printing  
and manufacture.

Controller of the Secretariat."

Although *Chih-yüan ch'ao* in the amount of 5,656,678 *ting* were printed during the years 1287-1294<sup>6</sup>, not a single one of the notes seems to have come down to our time. In the first decade of this century P. K. Kozloff discovered in Karakhoto some notes of the time of Mongol empire, but they are of different origin, all being in the square Mongol script.<sup>7</sup> There remain then only the two metal blocks, both of unknown origin and history.

If one will examine the ink squeezes of both blocks reproduced herewith one will immediately detect certain differences. Anyone familiar with Chinese will sense a superior calligraphic hand behind the writing of the Chinese characters in block M

<sup>5</sup> The rank of this officer, *tsan* (or *ts'uan*) *ssu*, is lower than that of vice-commissioner (*sbib-fu*) below. If one may judge from more modern examples, names, numbers, and dates were filled in by hand on each note.

<sup>6</sup> Cf. Blake, *op. cit.*, p. 322.

<sup>7</sup> Cf. Kozloff, "The Mongolia-Szechuan expedition of the Imperial Russian Geographic Society," *The Geographic Journal* 34, October 1909 pp. 384-408, especially p. 387, and T. F. Carter, *The Invention of Printing in China and Its Spread Westward*, 1925, p. 79 and note 19. Through the kindness of Professor Basil M. Alexiev the author had the good fortune to see some of them in Leningrad in January 1937.

(for Mercher as against L for Lo). The fiery pearl represented in the top corners has been done with a certain flair in M, and is mechanically represented in L. In some of the lines in the panels one can readily make out designs for birds in flight<sup>8</sup> in M, whereas in L they seem meaningless. It is our belief therefore that in M we have a block which is qualitatively superior to L, and which may well date from the latter years of the great Mongol.

L. CARRINGTON GOODRICH

<sup>8</sup> Cf. the much simpler designs of birds in the reproduction of a still earlier note, dated 1214, reproduced and discussed by Rev. Joseph Mullie, "Une planche à assignats de 1214," *T'oung Pao* 33, 1937, pp. 150-157.

#### LIST OF ILLUSTRATIONS ON PLATES XXII-XXIV

- PLATE XXII Bronze block, 8 inches wide,  $11\frac{1}{8}$  inches long,  $\frac{1}{4}$  inch thick, resting on 4 pegs  $\frac{5}{8}$  inches in height.
- PLATE XXIII Ink squeeze of bronze block.
- PLATE XXIV Reproduction of ink squeeze of another bronze block illustrated in Lo Chen-yü: *Ssu-ch'ao ch'ao-pi t'u-lu* (1914).





1



2



3



4



5



6



7



HOARD OF MEGALOPOLIS



8



9



10



11



12



13



14



HOARD OF MEGALOPOLIS



15



16



17



18



19



20



21



HOARD OF MEGALOPOLIS



22



23



24



25



26



27



28



HOARD OF MEGALOPOLIS



29



30



31



32



33



34



35



HOARD OF MEGALOPOLIS



36



37



38



39



40



HOARD OF MEGALOPOLIS



1



2



3



4



5



6



7



CISTOPHORIC COINAGE





1



2



3



4



5



6



7



8



9



10



11



MINT OF ASCALON





12



13



14



22



15



16



17



MINT OF ASCALON



1



2



3



4



ATHENA ALKIDEMOS



5



6



7



8



9



10



11



12



13



ATHENA ALKIDEMOS



14



15



16



17



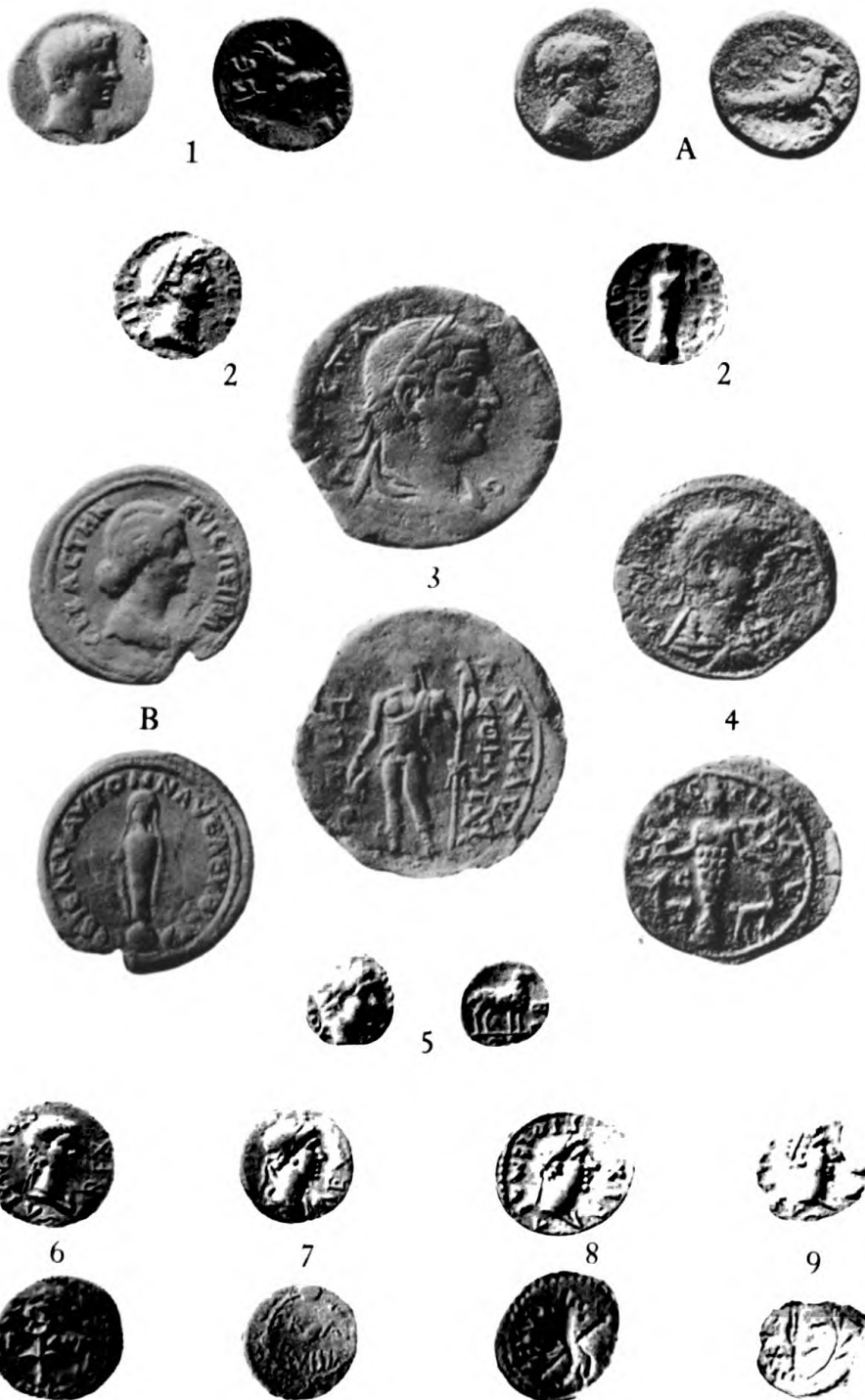
18



19



ATHENA ALKIDEMOS



SOME GREEK COINS AT A. N. S.



1



2



3



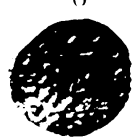
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6



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8



9



10



11



12



13



14



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16



MEROVINGIAN COINS



17



18



19



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MEROVINGIAN COINS



1



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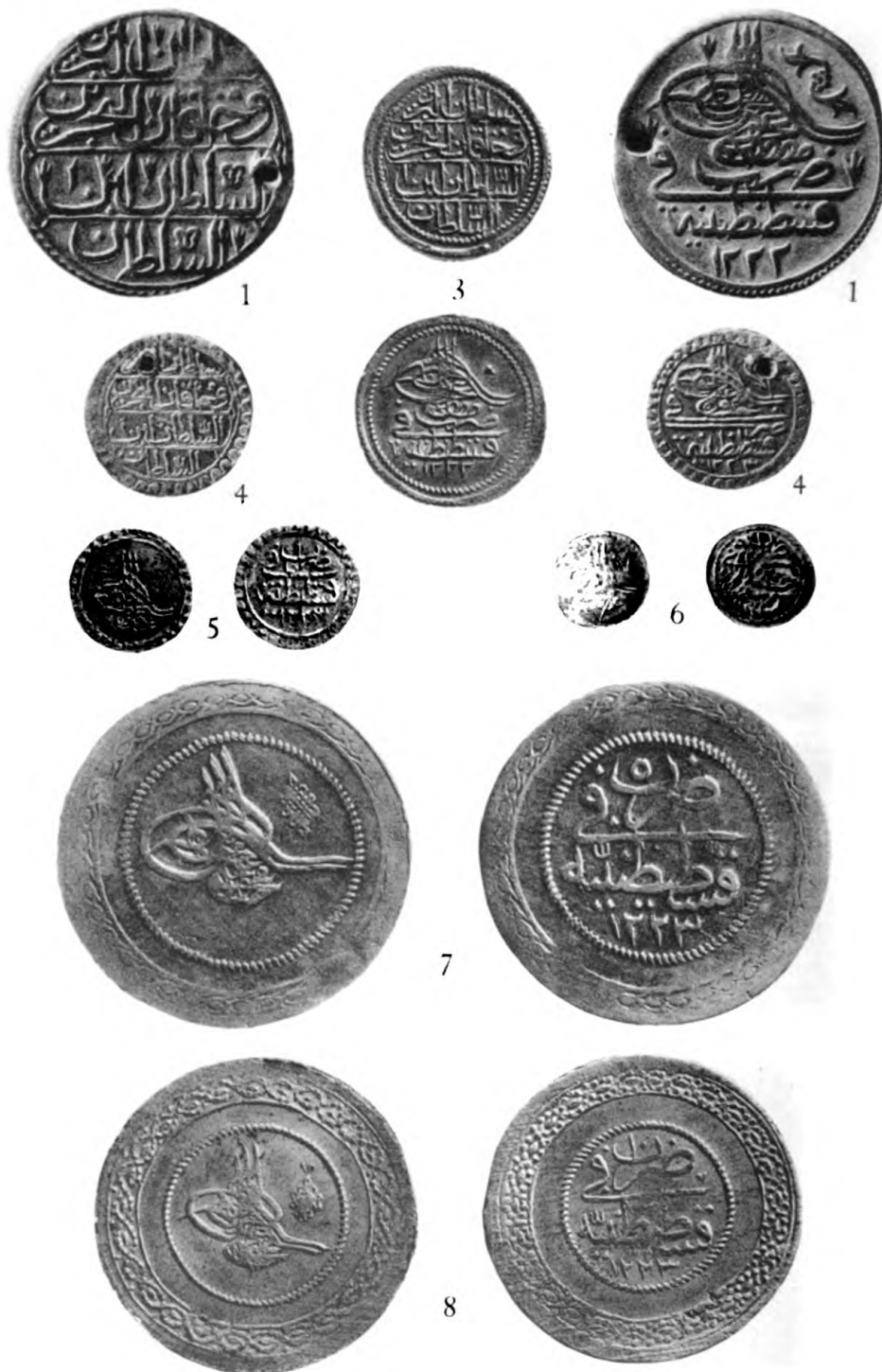
4

ORLOWSKI COLLECTION

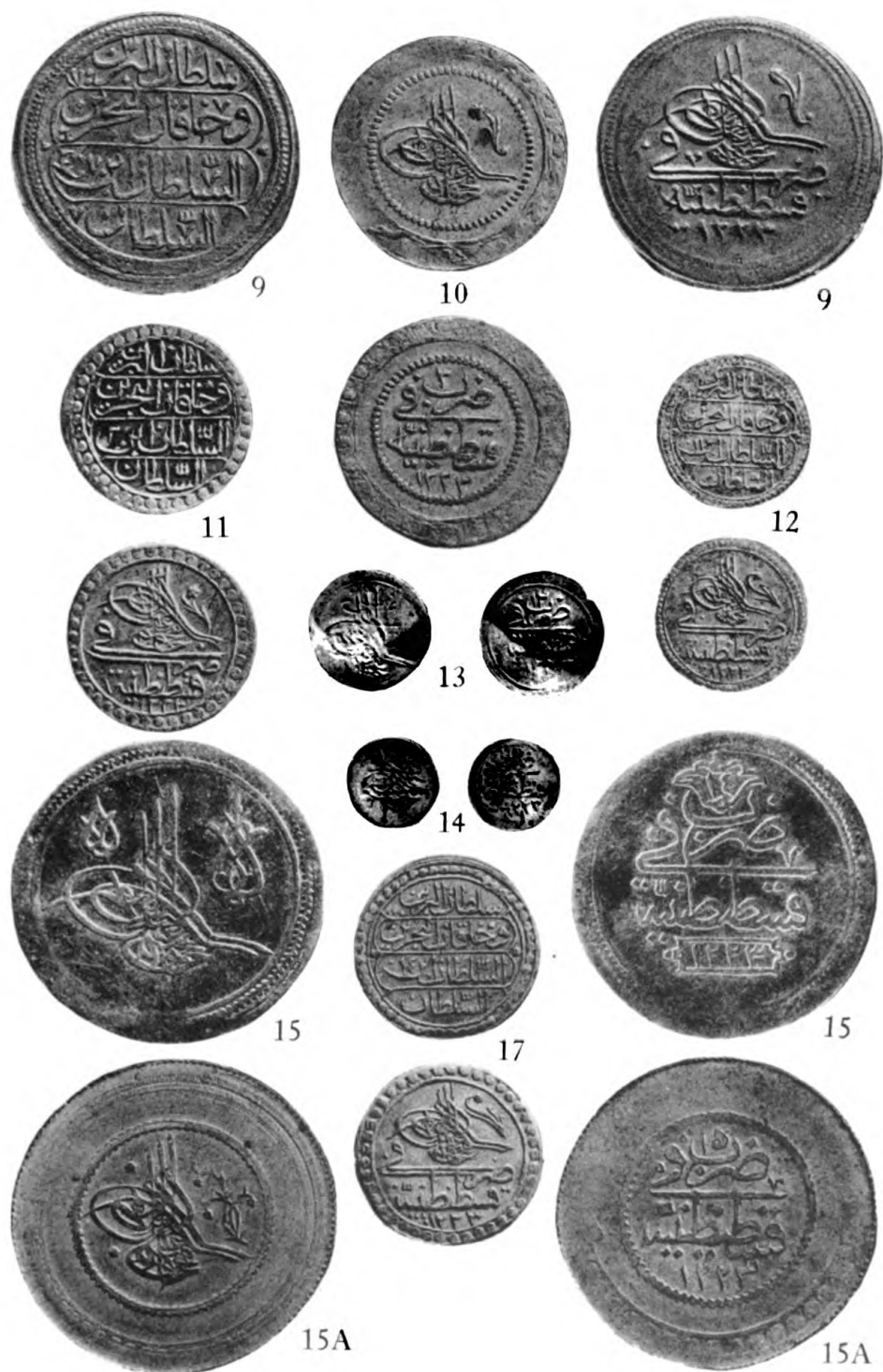




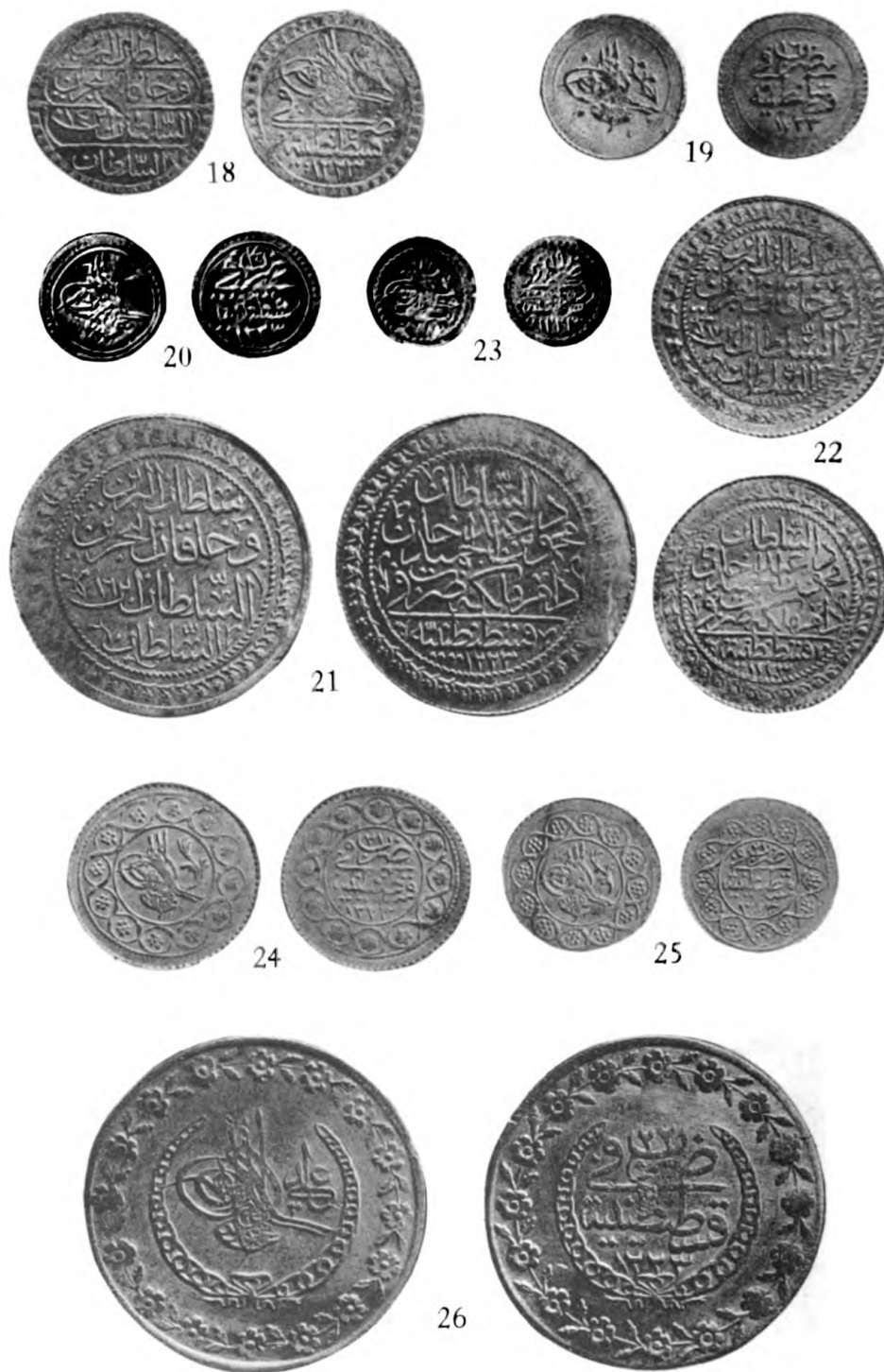
ORŁOWSKI COLLECTION



SILVER COINAGE OF MAHMUD II



SILVER COINAGE OF MAHMUD II

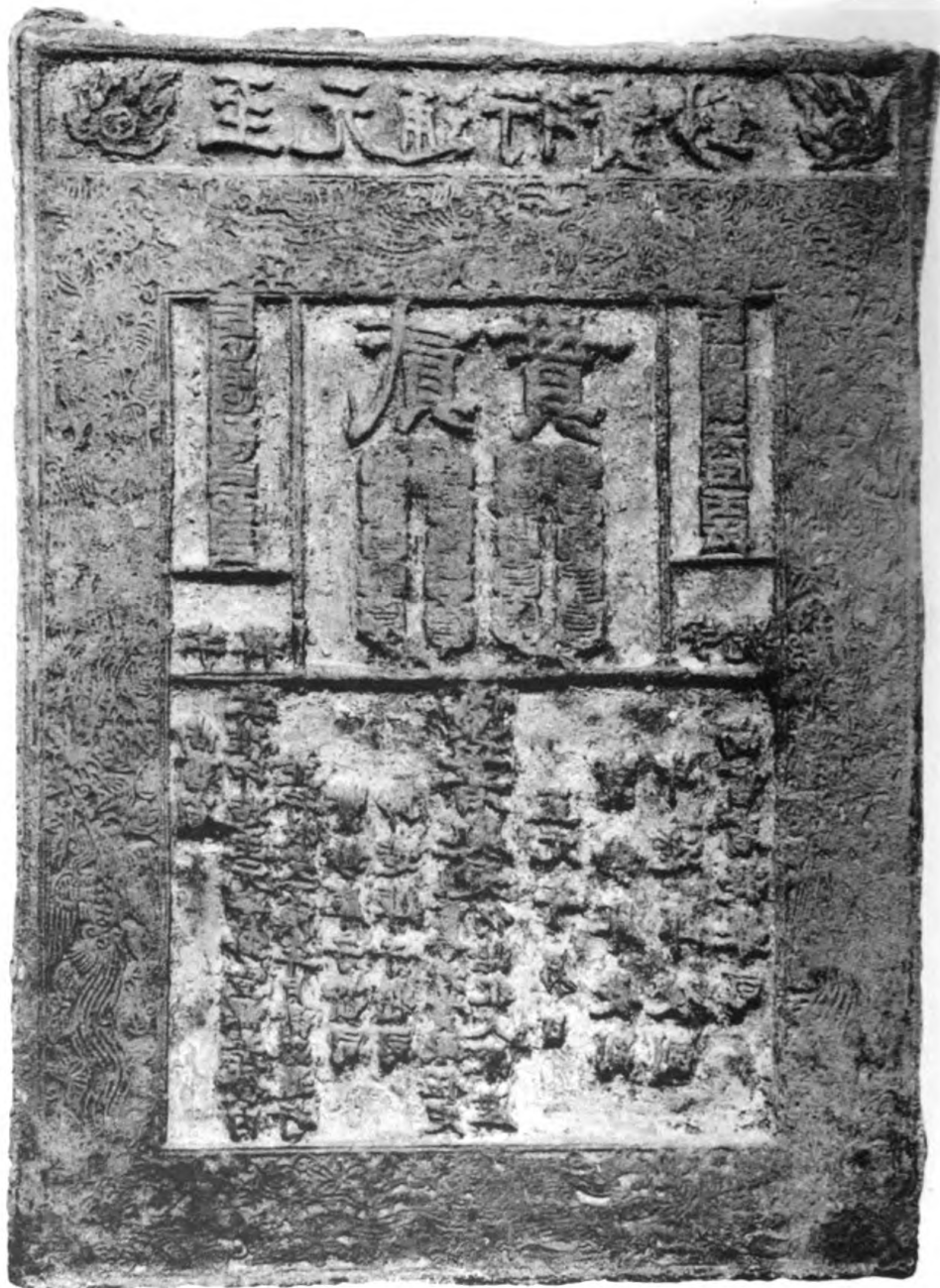


SILVER COINAGE OF MAHMUD II



SILVER COINAGE OF MAHMUD II





BRONZE BLOCK FOR PRINTING CHINESE CURRENCY  
(Reduced in Size)



INK SQUEEZE OF BRONZE BLOCK (M)  
(Reduced in Size)



INK SQUEEZE OF BRONZE BLOCK (L)  
(Reduced in Size)



CJ  
15  
A518  
No. 5

THE AMERICAN NUMISMATIC SOCIETY

# MUSEUM NOTES

V



THE AMERICAN NUMISMATIC SOCIETY

BROADWAY AT 156TH STREET

NEW YORK

1952



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THE AMERICAN NUMISMATIC SOCIETY  
MUSEUM NOTES

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### MUSEUM NOTES

is a publication consisting principally of brief notes and papers on numismatic items in the Society's collection. It is prepared by the Staff and Members of The American Numismatic Society.

THE AMERICAN NUMISMATIC SOCIETY  
MUSEUM NOTES

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## THE BENHA HOARD OF PTOLEMAIC GOLD COINS

(SEE PLATES I-IV)

About 1936 a sizable hoard of Ptolemaic gold coins, mostly octadrachms, was found in or near Benha, the modern city near the Ptolemaic Nome-Capital, Athribis, about one hundred miles from Alexandria on the railroad to Cairo. The coins had already appeared on the market in Cairo when I first heard of the discovery from M. Michel Abemayor, who very kindly gave me the photographs from which our illustrations were made. Other specimens were seen in the shop of M. Maurice Nahman of Cairo, and M. Victor Adda of Alexandria, who has a remarkable collection of "Ptolemaia," had acquired some examples which I was unable to inspect. As I recall, there was another Berenike II octadrachm of Ephesos in the hoard, which had been sold. No information was obtained concerning any other rarities or any estimate of the total number found. However, the commoner coins of the class popularly known in Egypt as "Theon Adelphon" were probably numerous as they were "going begging," so to speak.

From M. Abemayor I acquired the rare and beautiful Arsinoe octadrachm of Ioppa and from M. Nahman the fine Kition piece (Nos. 20 and 13) with the idea that they would be acceptable for the Newell cabinet, which proved to be the case. The photograph of the Sidon coin with Ptolemy III's portrait (No. 29), was sent to me later by Abemayor and was perhaps in the hoard. The finely preserved pentadrachm of Tyre (No. 14) is the earliest piece; the octadrachms of Ptolemy IV, are the latest in our lot (No. 27) in uncirculated condition. Judging from the data available, the hoard was put under ground early

in Philopator's reign. In these years Egypt was seriously threatened with invasion by Antiochos III and made strenuous preparations for war until the crisis was settled by Ptolemy's victory at Raphia in 217. Such circumstances frequently account for the burial of treasure.

Our "excerpts" from the hoard are as follows: Ptolemy II, Arsinoe octadrachms of Alexandria all dated except the first (Nos. 1-10); undated Arsinoe octadrachms of Cyprus (Nos. 11-13); a dated pentadrachm, Soter eagle types, of Tyre, (No. 14); dated Arsinoe octadrachms of Tyre (Nos. 15-17); Ptolemy III, an undated Berenike octadrachm of Ephesos (No. 18); an undated Arsinoe octadrachm of Berytos, (No. 19); a dated Arsinoe octadrachm of Ioppa (No. 20), similar of Tyre, (No. 21); Theon Adelphon octadrachms and tetradrachms of Alexandria (Nos. 22-26), the last of which is dated; Ptolemy IV, undated octadrachms, portrait of Ptolemy III, of Alexandria (Nos. 27-28), similar of Sidon (No. 29). As one might expect, more than half of the coins come from the Alexandria mint (17); there are 5 from Tyre and 3 from Cyprus, the rest, 1 each from Berytos, Ioppa, Sidon and Ephesos, though there may have been 2 from Ephesos.

## CATALOGUE

### PTOLEMY II PHILADELPHOS, 285-246 B.C.

Arsinoe octadrachms dated from the year of her death, 270 B.C., according to alphabetic numeration, K = 10, Λ = 11, etc.

#### *Alexandria*

No date, 270 B.C.

1. Head of Arsinoe II to r., wearing diadem, stephane and veil; tip of the horn of Ammon below her ear; scepter in background; border of dots.

*Rev.* ΑΡΣΙΝΟΗΣ ΦΙΛΑΔΕΛΦΟΥ Double cornucopiae with fringed

fillets fluttering l. and r., filled with fruits, a bunch of grapes hanging l. and r.; border of dots.<sup>1</sup> PLATE I, 1

This undated piece was probably struck before it was decided to start a dated series (cf. Svoronos, *Τὰ Νομισματὰ τοῦ Κράτους τῶν Πτολεμαίων*, Pl. XV, 6.

- |                                   |                         |              |
|-----------------------------------|-------------------------|--------------|
|                                   | Year H, 7 (= 264 B.C.)  |              |
| 2. Similar, with date on obverse. |                         | PLATE I, 2   |
|                                   | Year O, 8 (= 263 B.C.)  |              |
| 3. Similar                        |                         | PLATE I, 3   |
| 4. Similar                        |                         | PLATE I, 4   |
|                                   | Year I, 9 (= 262 B.C.)  |              |
| 5. Similar                        |                         | PLATE I, 5   |
|                                   | Year K, 10 (= 261 B.C.) |              |
| 6. Similar                        |                         | PLATE I, 6   |
| 7. Similar                        |                         | PLATE I, 7   |
|                                   | Year M, 12 (= 259 B.C.) |              |
| 8. Similar                        |                         | PLATE II, 8  |
|                                   | Year X, 14 (= 257 B.C.) |              |
| 9. Similar                        |                         | PLATE II, 9  |
| 10. Similar                       |                         | PLATE II, 10 |

#### Undated octadrachms of Cyprus

##### *Salamis, Cyprus*

11. Similar, no date.  
*Rev.* Similar; below on l., eight-pointed star; below on r., ΣΑ. PLATE II, 11  
 A star of eight rays occurs as type or symbol on coins of the Cypriote kings, B.M.C., *Cyprus*, cf. Index, p. 98 and p. lxxviii.

##### *Kition, Cyprus*

12. Similar  
*Rev.* Similar; below on r., K, initial of the mint, topped by a thunderbolt placed horizontally. PLATE II, 12  
 Svoronos (*Τὰ Νομισματὰ τοῦ Κράτους τῶν Πτολεμαίων*, p. 77, Pl. XV, 5) assigned this issue with a question mark to Keryneia, known as a Fourth Century kingdom but not as a mint, cf. B.M.C., *Cyprus*, p. xix-xx and cxii.

<sup>1</sup> Arsinoe bore the surname Philadelphos, which probably belonged originally to Ptolemy II, Max L. Strack, *Dynastie der Ptolemäer*, pp. 115 f.

But the thunderbolt below the city initials on No. 13, a variety not known to Svoronos, assures the attribution to Kition.

13. Similar.

*Rev.* Similar; below on r.  $\text{KI} = \text{KIT}$  above a horizontal thunderbolt.  
A.N.S., Newell. PLATE II, 13

Pentadrachm dated by regnal years of Ptolemy II,  
according to alphabetic numeration

*Tyre, Phoenicia*

Year H, 7 (= 279 B.C.)

14. Head of Ptolemy I Soter to r. with diadem, and aegis around his shoulders  
border of dots.

*Rev.*  $\text{ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ}$  Eagle standing to l. on thunder-  
bolt, wings partly opened; in l. field, H above club; border of dots.

PLATE II, 14

Arsinoe octadrachms dated by regnal years of  
Ptolemy II, according to alphabetic numeration

*Tyre, Phoenicia*

Year  $\Sigma$ , 18 (= 268 B.C.)

15. Same type as No. 13.

*Rev.* Same type as No. 13; below on r., club upright above  $\Sigma$ .

PLATE III, 15

Similar coins but dated by cardinal numbers, I = 10, IA = 11, etc.

Year  $\Lambda\text{I}$ , 37 (= 249 B.C.)

16. Similar.

*Rev.* Similar; below on l.,  $\Lambda\text{I}$ ; below on r.,  $\Psi$ , monogram of mint above  $\odot$ .

PLATE III, 16

Year  $\Lambda\odot$ , 39 (= 247 B.C.)

17. Similar.

*Rev.* Similar but  $\Lambda\odot$ .

PLATE III, 17

## PTOLEMY III EUERGETES (246–221 B.C.)

## Undated Berenike II octadrachm

*Ephesos, Ionia*

18. Head of Berenike II to r., wearing diadem, veil, earring and necklace; border of dots.

*Rev.* BEPENIKHΣ BΑΣΙΛΙΣΣHΣ Single cornucopiae with fringed fillets fluttering l. and r., filled with fruits, a bunch of grapes hanging l. and r.; in l. field, a bee upward; border of dots. PLATE III, 18

This coinage with the youthful portrait of Berenike II was struck not earlier than 245 B.C., the year in which Ephesos was won by Ptolemy III during his invasion of the Seleucid kingdom. Possession of this flourishing and renowned city by Egypt was soon made known by the issuance of a new series of gold octadrachms mint-marked by a bee, the ancient Ephesian emblem. On these coins, Euergetes chose to honor his newly wedded wife, the first Ptolemaic queen to have her portrait on the coinage in her lifetime.<sup>2</sup> He also elected to give her the queenly title.

## Undated Arsinoe octadrachm without mint mark

*Berytos, Phoenicia*

19. Similar to other Arsinoe heads but without scepter, known as the "Berenike type" because of a certain resemblance to later portraits of this queen.

*Rev.* Similar to Arsinoe type.

PLATE III, 19

Attributed by Svoronos, *Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων* (Pl. XXIII, 21 and 22) to Berytos because a similar issue bears a trident, the well known mint-mark of this city.

Arsinoe octadrachm dated by regnal years of Ptolemy III

<sup>2</sup> The coins of Kyrene bearing Berenike I's portrait, given by Svoronos to the reign of Ptolemy I (*Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων*, Pl. III, 42–44), have now been proved posthumous; they were struck by her son, Magas, in 277(?)–261 B.C. (E. S. G. Robinson, B.M.C., *Cyrenaica*, p. cxli and cxlix ff.). As wife of Lysimachos, Arsinoe, later the wife of Ptolemy II, had lifetime portraits on coins of Ephesos, temporarily renamed Arsinocia (B.M.C., *Ionia*, Pl. X, 5 and 6). The attribution of coins inscribed "queen Berenike" — octadrachms like our No. 18 — to another Berenike, the sister of Ptolemy III, who married Antiochos II (W. Koch, *Zeit. f. Num.*, XXXIV, 1923, pp. 69f.) has no numismatic or historical probability.

*Ioppa, Palestine*

Year A, 1 (= 246 B.C.)

20. Similar to No. 17.

*Rev.* Similar; below on l., A; below on r., ΙΓ, monogram of Ioppa. Mrs. Adra M. Newell Coll. PLATE III, 20

Arsinoe octadrachm dated as above

*Tyre, Phoenicia*

Year Δ, 4 (= 243 B.C.)

21. Similar.

*Rev.* Similar; below on l., Δ; below on r., Ψ (variety of monogram of Tyre, Ψ) above Ο. PLATE III, 21

Octadrachms of Theon Adelphon class

*Alexandria, Egypt*

22. ΑΔΕΛΦΩΝ Jugate busts of Ptolemy II and Arsinoe II to r., diademed, former with chlamys, latter with veil; in l. field, shield with longitudinal rib; border of dots.

*Rev.* ΟΕΩΝ Similar jugate busts of Ptolemy I and Berenike I.

PLATE IV, 22

23. Similar.

PLATE IV, 23

Tetradrachms of Theon Adelphon class

*Alexandria, Egypt*

24. Similar.

PLATE IV, 24

25. Similar.

PLATE IV, 25

Year K, 10 (?), Era (?)

26. Similar, but K on obverse, on lower r.

PLATE IV, 26

On the first rare issue of this class, the portraits of Ptolemy III's grandparents, the Soter couple, occupy the obverse, his parents, the Philadelphos couple, the reverse, which is inscribed ΟΕΩΝ ΑΔΕΛΦΩΝ (Svoronos, Τὰ Νομίσματα τοῦ Κράτους τῶν Πτολεμαίων, Pl. XXVIII, 1 and 2). On

the succeeding commoner issues, like our Nos. 22–26, the former reverse became the obverse and ΘΕΩΝ was transferred to the new reverse. Svoronos, followed by most modern numismatists, attributed the initiation of the coins like Nos. 22–26 to Ptolemy II though he gave our “first” issue to Ptolemy III. From the evolution in types just described, the superior style and scarcity of the issue with ΘΕΩΝ ΑΔΕΛΦΩΝ together on the reverse, it is obvious that such octadrachms were the forerunners of the whole class. Again, since Ptolemies IV and V continued the issues of the commoner coinage, it is highly probable that Ptolemy III inaugurated this class of coinage. Otherwise there would be no gold octadrachms of Ptolemy III from the Alexandria mint, the dated Arsinoe octadrachms first struck by Ptolemy II having ceased during his reign. In *Royal Greek Portrait Coins*, 1927, p. 86, and again in *Western Seleucid Mints*, 1941, p. 230, Newell<sup>3</sup> assigned the initiation of the Theon Adelpnon class to Ptolemy III. Note that Svoronos mistook obverse for reverse in every coin which he illustrated except Pl. XXXVIII, 5, and cf. Hill, *Num. Chron.*, 1927, p. 208, Pl. XI, 62.

#### PTOLEMY IV PHILOPATOR (221–304 B.C.)

##### Undated octadrachms with portrait of Ptolemy III

##### *Alexandria, Egypt*

27. Bust of Ptolemy III to r. with slight whisker, wearing diadem, crown of rays of Helios, aegis of Zeus around his shoulders and trident of Poseidon at his shoulder; the central prong of the trident ends in a finial of a scepter; dolphins play along the staff of the trident; border of dots.

*Rev.* ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ Single cornucopiae with fringed fillets fluttering l. and r., filled with fruits, a bunch of grapes hanging at l.; above the cornucopiae, a radiate arc enclosing the top; below on r., ΔΙ; border of dots.

PLATE IV, 27

<sup>3</sup> I recall that Newell regarded the Benha Hoard of 1922–23 (S. P. Noe, *Bibliography of Greek Coin Hoards*, 2nd ed., 1937, p. 48, No. 140) as confirmation of his belief that the Theon Adelpnon coinage began under Ptolemy III. This hoard, he wrote in *The Numismatist*, 1924, p. 301, “consisted exclusively of gold octadrachms of Ptolemy IV with the rayed bust of the king on their obverses and the cornucopia on their reverses, together with gold octadrachms and gold tetradrachms bearing the four portraits of Ptolemy I, Berenice I, Ptolemy II, Arsinoe II.” Our Benha Hoard is No. 142 in Noe’s *Bibliography*.

28. Similar.

PLATE IV, 28

*Sidon, Phoenicia*

29. Similar.

*Rev.* Similar; in l. field,  $\text{Ϝ}$ , initials of Sosibios, his minister; in r. field,  $\Sigma$ Ι, initials of the mint.

PLATE IV, 29

AGNES BALDWIN BRETT



## A GROUP OF DIE-SEQUENCES AT POSEIDONIA

Ca. 430–410 B.C.

(SEE PLATES V–VI)

As long ago as 1913, the attention of numismatists was drawn by the late E. J. Seltman to the series of single letters on staters of Thurium.<sup>1</sup> A somewhat similar series at Poseidonia will be considered here.

The change at Poseidonia from the incuse form of coinage to that having both obverse and reverse showing designs in relief is generally considered to have preceded the same change at Metapontum and Croton. Since we have no convincing indication of when this change took place at any of the three cities, it offers little help in fixing a date for the series marked with letters. With the late issues we are a little more fortunate for we do know that the overthrow of Poseidonia took place before Caulonia was destroyed by Syracuse in 388, and Head accepts c. 400–390 as the date for the cessation of a coinage with the name of Poseidonia. This enables us to place the staters of Poseidonia with symbols and signatures in a group which would come in the last period of the city's existence before its name was changed by the Lucanian conquerors. The group with the serial letters to which attention is herein directed would come, on the basis of style, before this last group with symbols, that is, between c. 430 and 410 B.C.

This group consists of about a score of varieties having letters beginning with *alpha* and extending as far as *iota*. Our list of varieties can lay no claim to absolute completeness;

<sup>1</sup> *Journal international d'archéologie numismatique*, Vol. XV, 1933, pp. 3–10.

indeed there is good reason to expect additions within these limits. Perhaps, even the lower limit of the series now known may be extended.

This group has an obvious advantage for the study of mint procedure in that it is separable from its predecessors and successors; it constitutes a distinct and distinctive unit. The letter dies are to be interpreted in but one way — they should indicate sequence in the order of the letters. Within a sequence which may be considered certain, we are able to study stylistic changes and coining procedure with confidence. For example, the border which constitutes the frame for the obverse type of No. 1 is seen to be in contrast to the earlier incuse issues with a rim which is a true circle (on the reverse of the incuse staters the central point for describing this circular rim is plainly to be seen). But for these double relief staters, the standing figures on the obverse are tall and the drapery and inscription do not fill the field. As a result the border assumes the form of an oval. Describing a linear oval accurately is not a simple matter. What the die-engraver has done is to make his border a three-fold one with dots as the units, solving his dilemma by using, instead of the troublesome linear oval, one much easier to form by adjusting the dots or pellets. Any irregularity is disguised by the circumstance that the entire border is seldom found on a coin (a part of the border is usually off-flan). The anvil die is, without exception, larger than any of the flans I have observed. The punch or reverse die with contrasting proportions is sometimes nearly complete. This makes the die-positions significant. Generally they are at a 45° angle.

Although the sequence on the plates will be fairly obvious to anyone who has had experience in the identification of dies, there are some elements which will, I trust, extenuate a review here. Does the change in the orientation of the bull at the

very beginning of the series have significance? I believe that it may, although establishing the order for the preceding issues would lead further afield than I am prepared to go. It can be said, however, that for the coinage which follows, the bull faces to the left (as here) with very few exceptions.

In this series, we clearly have a new beginning, whatever its occasion may have been. It may have been nothing more than a change in the mint officials or the "mint procedure." The authorities evidently concluded that lettering the dies would be advantageous. They also believed, apparently, that the dies would have equal lasting qualities — that the "life" of the obverse die would be the same as that of the reverse. But this equality of "life-expectancy" did not last beyond the *gamma* dies. I have not been able to find a reverse die with *gamma*, but I believe it safe to predict that one will come to light. Perhaps there will be more than one addition for we have no record of a  $\Gamma/\Gamma$  muling or of one with  $\Delta/\Delta$ , and both are certainly among the possibilities. The conformation of the flans of these coins shows that the anvil die is the one bearing the figure of Poseidon. We know that the upper or punch die is the one which bears the greater stress in striking. But, whatever the reason, we find that immediately after the obverse die of No. 5 (the  $\Gamma$  die) was finished with, an obverse die without a letter followed. We are able to establish this because the reverse die of No. 7 is a later state of the reverse die of No. 6. Nos. 7, 8, and 9 have an obverse die with  $\Delta$ , and the sequence is shown not alone in the lettered reverses but by an obverse break which is slight in No. 7 and increases with Nos. 8 and 9, giving the Poseidon in these two later states the appearance of having a flowing beard. We next find that No. 9 shares the reverse die with No. 10, with a die-break showing that this is unmistakably the order. No. 10, in turn, has an obverse common to No. 11 also, although there is no letter to be seen

on either coin. Now No. 11, like No. 6, has for its reverse die, not an identifying letter, but a scallop shell, and it is hard to escape the conclusion that a number of staters having a scallop shell in the same position on the reverse were introduced at this particular point in the sequence of lettered dies. There are eight varieties with this shell — possibly, or even probably, more than this number. There is at least one instance in which the obverse die is used for more than one reverse — I do not doubt that more will be found. But even if such a prediction proves true, it will not radically affect the “succession” for in No. 18 there is a resumption of the use of the lettered dies. This return to the earlier procedure begins with an obverse lettered E and a reverse lettered I. This is not the old reverse die with this letter found in Nos. 9 and 10, but another die with the letter above the exergual line instead of below, a change in position which marks not only this, but the succeeding dies with letters. From here on, the progression of the lettered dies is clear. The reverse dies, as usual, show a shorter life than the obverses and by the time No. 22 was reached, we have H on the obverse and I on the reverse. The next obverse die, the one with ☉, affords combinations with three reverses. Two are without letters, but the third with outrageous inconsistency, uses a badly rusted and damaged die which bears the letter Δ, and this, on comparison, proves to be identical with the reverse die of No. 5.

It must not be inferred from the foregoing that all Poseidonia dies bearing single letters can or must be fitted into this series. No. 28 shows a tiny letter Φ beneath the bull; this is almost certainly the initial of the artist ΦΙΑ who signs a stater with the very same details (?) in the Berlin Collection. No. 29 with the letter T on the reverse has an obverse die with a dolphin which connects it with the group bearing symbols coming latest in the coinage. In the groups which precede this

One, there are reverses with two letters in the exergue as well as some with single letters of which No. 27 is one (reversed E, with what looks like an additional letter that has been erased), clearly of an earlier style. Similarly, a stater with Θ on the obverse in the extreme left field in the Newell Collection does not compare favorably with the *theta* die in the letter-sequence; it is unquestionably much earlier. Notwithstanding these exceptions, the group here constituted is submitted as having a homogeneity which cannot be denied.

To recapitulate: we find that with our present information there seems to have been a break in the sequence of lettered dies following our No. 5 (Γ/Δ) with the interpolation of Nos. 6 and 11-17 bearing a shell on the reverse. This interruption can hardly be called brief or merely for the purpose of again obtaining dies with the same letter on both obverse and reverse, as at the beginning, although this condition does recur later. It seems more reasonable to see the interruption as a decision to use what may have been a personal badge as a substitute for the serial lettering or numbering of the dies. Possibly, under such circumstances, it was the result of a political overturn, following which there was a reversion to the use of lettered dies. The reverse of No. 18, in either event, is a die which survived the interruption. Its utility not having been exhausted, it was used as an emergency replacement just before the practice was discontinued.

The variations in the form of the inscriptions will have been noticed, and since the expansion into ΓΟΣΕΙΔΑΝΙΑΤΑΣ involves what Dr. George Macdonald called "a characteristic use of the nominative singular of the city's name, standing by itself" — a use which is paralleled at Sybaris, Croton, and Caulonia, it deserves comment. In a very informative article<sup>2</sup>

<sup>2</sup> George Macdonald, *Congrès International de Numismatique, Procès-Verbaux*, Bruxelles 1917, pp. 281-288.

Dr. Macdonald analyzes the significance of the varying forms taken by the ethnics as they appear on coins, reaching the conclusion that some such word as *χαρακτήρ* is to be supplied or understood. For the obverse, we might supply *οίκιστής* (?), but Dr. Macdonald believes the same word will not apply for both obverse and reverse. A stater with the full inscription is listed in B.M.C., *Italy*, p. 268, no. 30, but the full form does not occur frequently at Poseidonia. Abbreviations which would be completed with this ending do occur in the present series as well as later.

1. ΓΟΜΕΣ, reading downward from the rim (retrograde). Poseidon advancing r., wearing chlamys and brandishing trident; l. arm extended. In the l. field, the letter A. The border consists of three rows of dots.  
*Rev.* Standing bull facing to r. Above, ΓΟΜΕΣ ΔΑΜΣ. Below the linear ground line, the letter A.
  - a. Lockett Coll., Sylloge 444  
 ex Pozzi Sale, Naville I, 1921, 210 7.57
  - b. Cambridge, Fitzwilliam, Sylloge 548 7.10  
 (letters not certain, but rev. die-break fixes die.)
2. Die of No. 1.  
*Rev.* Bull to l.; in exergue the letter B. The inscription in nine letters is retrograde.
  - a. ANS — E. T. Newell Coll. 7.72  
 ex Ratto Sale, I, 25, 1926, 513
3. Similar to No. 1, but the letter on l. field is B.  
*Rev.* Die of No. 2.
  - a. ANS — E. T. Newell Coll. 7.41
  - b. Paris
  - c. Munich 7.72
  - d. Metropolitan Museum, New York, 7.74  
 Ward Coll., 64
  - e. Naville XVI, 215 7.73
  - f. Hirsch 31 (May, 1912), 69 7.85
4. Die of No. 3 (badly corroded).  
*Rev.* Similar to No. 2, but the exergual letter is Γ.
  - a. Helbing Sale 11/8/1928, 3380 7.75

5. Similar. A die-break connects the shoulder of Poseidon with the trident. The inscription (six letters) reads downward from the center. In l. field, the letter Γ.

*Rev.* Similar. Retrograde inscription in seven letters. In the exergue, the letter Δ, of which the top only is visible.

- |                             |      |
|-----------------------------|------|
| a. ANS — W. G. Beatty Coll. | 7.65 |
| b. Copenhagen, Sylloge 1286 | 7.50 |

6. Similar, but without letter in l. field. The five-letter inscription reads downward from the center. A die-break extends from the breast of Poseidon to the ground line.

*Rev.* Bull to left, the ground line formed by dots between two lines. Seven-letter inscription (retrograde). A scallop shell beneath the bull and above the exergual line.

- |                                   |      |
|-----------------------------------|------|
| a. Frankfurt                      | 7.90 |
| b. Hoyt Miller Coll.              | 7.61 |
| c. Bourgey Sale, 1911 (Rous), 17  |      |
| d. Egger XL, 1912, 169            | 7.78 |
| e. Münzhandl. Basel IV, 1935, 333 | 7.67 |

7. Similar. In l. field, the letter Δ. The five-letter inscription is weakly cut; it reads from the rim downward. The figure of Poseidon is broad-shouldered and heavy and is apparently beardless.

*Rev.* Die of No. 6.

- |                             |      |
|-----------------------------|------|
| a. Copenhagen, Sylloge 1288 | 7.77 |
|-----------------------------|------|

8. Die of No. 7 but now with a die-fracture which gives the effect of a heavy beard to Poseidon and at the same time broadens the torso.

*Rev.* Similar. Seven-letter inscription, retrograde. In the exergue, the letter E.

- |                                   |      |
|-----------------------------------|------|
| a. Berlin                         | 7.81 |
| b. ANS — E. T. Newell Coll.       | 7.55 |
| c. ANS — E. T. Newell Coll.       | 7.80 |
| d. Ratto Sale, Jan. 25, 1926, 514 | 7.83 |
| e. Sambon-Canessa Sale, 1927, 362 | 7.55 |
| f. Sambon-Canessa Sale, 1927, 363 | 7.50 |

9. Die of No. 6.

*Rev.* Similar, inscription reads ΓΟΞΕΙΔΑ. In exergue, the letter Δ.

\* Note that inscription is not retrograde, that Μ now becomes ξ and ▷ becomes Δ and that there is a single stroke *iota*. This may mean that after an interval both obverse and reverse dies were again put into service despite their rusted condition, just as the reverse die of No. 25 must have been. Cf. our No. 17 where these letter forms appear but on a smaller scale.

- a. Pozzi Sale, 1921, 211 7.61
10. Similar, but Poseidon is beardless. No serial letter. The inscription is as in No. 5. A die-crack joins the right knee of Poseidon with his left thigh.  
*Rev.* Die of No. 8; a die-break obliterates part of the inscription.  
 a. ANS — E. T. Newell Coll. 7.70  
 b. ANS — E. T. Newell Coll. 7.83
11. Die of No. 10.  
*Rev.* Similar to No. 6 but not the same die. The shell is larger and nearer the ground line which is lighter than in No. 6. The beginning of a die-break shows at the r. edge of the piece illustrated.  
 a. Berlin 7.76  
 b. Berlin 7.71  
 c. Boston, Regling-Warren Cat. 92 7.83  
 d. London, Lloyd Coll., Sylloge 437 7.80
12. Similar. Seven-letter inscription reading downward from the center. The border is irregular at the left.  
*Rev.* Similar. Die-breaks across shoulder of bull at lower right and at right angles to exergual line.  
 a. ANS — E. T. Newell Coll. 7.77
13. Die of No. 12.  
*Rev.* Similar, seven-letter inscription.  
 a. Schulman Sale, 12/16/1926, 48 7.90  
 b. Paris  
 c. London, A. H. Lloyd, Sylloge 438 7.83
14. Similar, the inscription has six letters.  
*Rev.* Similar. The five-letter inscription is retrograde. The exergual line is similar to that in No. 6 but is not so well cut.  
 a. Naville XVI, 1933, 214 7.78
15. Die of No. 14.  
*Rev.* Similar. The bull is smaller in scale than in the immediately preceding examples.  
 a. Munich 7.87  
 b. Baronowsky Fixed Price List, 1934, Pt. 3, 4518
16. Similar, six-letter inscription.  
*Rev.* Similar, eight-letter inscription (retrograde). The shell is larger than heretofore.  
 a. ANS — E. T. Newell Coll. 7.78



17. Similar. The drapery is less prominent than heretofore.  
*Rev.* Similar. The seven-letter inscription reads left to right. The shell is large as in No. 16.
- |                             |      |
|-----------------------------|------|
| a. Berlin                   | 7.78 |
| b. Berlin                   | 7.59 |
| c. Paris, DeLuynes Cat. 533 | 8.52 |
18. Beardless Poseidon with chlamys minimized as in No. 17. Letter in l. field, E. The five-letter inscription as in No. 5.  
*Rev.* Similar, except that the letter  $\Gamma$  appears above the ground line and beneath the bull. The inscription is of seven letters reading as on the other die with the same letter (No. 9).
- |                                   |      |
|-----------------------------------|------|
| a. ANS — E. T. Newell Coll.       | 7.72 |
| b. Copenhagen, Sylloge 1289       | 7.73 |
| c. Munich                         | 7.64 |
| d. Bourgey Sale, June 7, 1909, 86 |      |
19. Youthful Poseidon with seven-letter inscription reading downward from the center. In the left field, the letter  $\Gamma$ . A die-break unduly extends the chlamys in the r. field.  
*Rev.* Similar, seven-letter inscription reading left to right. Beneath bull and above exergual line, the letter H.
- |  |      |
|--|------|
| a. Hoyt Miller Coll.                     |      |
| ex Naville X (1925), 90                  | 7.79 |
| ex Naville IV (1922), 94                 |      |
| ex Headlam Sale, Sotheby, 1916, 206      |      |
| ex Num. Straniero Sale, Ratto, 1909, 909 |      |
| b. Berlin                                | 7.92 |
| c. Copenhagen, Sylloge 1290              | 7.77 |
| d. Paris                                 |      |
| e. ANS — E. T. Newell Coll.              |      |
| ex Schulman Sale, 12, 16, 1926, 46       | 7.77 |
| f. Merzbacher Sale, 1910, 114            | 7.86 |
20. Similar. The letter in l. field, H.  
*Rev.* Die of No. 12; die-crack at lower right.
- |  |      |
|--|------|
| a. Berlin                                  | 7.78 |
| b. Münzhandlung Basel Sale, IV, 1935, 335  | 7.78 |
| ex Schlessinger Sale, 1934 (Hermitage), 99 |      |
21. Die of No. 20.  
*Rev.* Similar, letter  $\odot$  above exergual line.

- |                                |      |
|--------------------------------|------|
| a. Berlin                      | 7.76 |
| b. Copenhagen, Sylloge 1291    | 7.81 |
| c. ANS — E. T. Newell Coll.    | 7.43 |
| d. Naville XVI, 218 (PLATE VI) |      |
| ex Feuardent 12, 17, 1916, 37  |      |
| ex Strozzi, 1907, 1051         | 7.80 |
| e. Rosenberg Sale, 1930, 2288  | 7.70 |

Specimen b (illustrated) shows two large die-cracks which extend across the die; in c, a further die-crack to r. of the bull is visible.

22. Die of No 13.

*Rev.* Similar. The letter beneath the bull is l.

- |                                       |      |
|---------------------------------------|------|
| a. Berlin                             | 7.80 |
| b. Egger Sale, 11, 28, 1904, 104      | 7.75 |
| c. Cat. of Sir Herman Weber Coll. 818 | 7.74 |

23. Similar. The letter in the l. field is O.

*Rev.* Eight-letter inscription, retrograde, with the l and N archaic. Three tiny pellets beneath the bull.

- |                                     |      |
|-------------------------------------|------|
| a. ANS — E. T. Newell Coll.         |      |
| ex Rosenberg Sale, 1914, 12         | 7.74 |
| b. Berlin                           | 7.80 |
| c. Brussels                         |      |
| d. Cat. Locker Lampson Coll. 26     |      |
| ex Naville XVI, 1932, 216           |      |
| ex Cat. Sir Herman Weber Coll., 817 | 7.70 |
| e. Paris (Cat. DeLuynes Coll., 531) | 7.75 |
| f. Cat. Jameson Coll., 335          | 7.80 |
| g. Naville XII, 448                 | 7.35 |
| h. Naville XVI, 217                 | 7.82 |
| i. Hamburger Sale 96 (1932), 19     |      |
| ex Hirsch XV, 1906, 630             | 7.81 |
| j. Carfrae Sale, Sotheby, 1894, 13  | 7.78 |

24. Die of No. 22.

*Rev.* Nine-letter inscription reading left to right. No letter beneath bull.

- |   |      |
|---|------|
| a. Berlin                                 | 7.82 |
| b. Schlessinger 13 (Hermitage), 1935, 100 | 7.30 |

25. Die of Nos. 23 and 24.

*Rev.* Badly worn die of No. 5 with inscription indecipherable but with Δ in the exergue.

- a. ANS — E. T. Newell Coll.  
ex Helbing Sale, 10/24/1927, 2559 7.82
26. Poseidon to r. Five-letter inscription reading downward from the rim. High in l. field, the letter  $\odot$ . The border a single row of dots.  
*Rev.* Bull to l. Four-letter inscription (retrograde).  
a. ANS — E. T. Newell Coll. 7.80
27. Similar. Five-letter inscription reading downward from rim. Border of dots between two lines.  
*Rev.* Similar. Five-letter inscription (retrograde). The ground line consists of a line above a row of dots. In the exergue, the letter E reversed and what appears to be another letter erased.  
a. Coll. of Arthur S. Dewing.
28. Similar. Six-letter inscription reading from center. In l. field, a laurel (?) branch.  
*Rev.* Bull to r. Seven-letter inscription reading l. to r. Beneath the bull a tiny  $\Phi$ . In the exergue, a dolphin to r.  
a. • Berlin 7.59
29. Figure of Poseidon in high relief. Nine-letter inscription reading downward from center. In r. field, dolphin, head downward.  
*Rev.* Bull to l.; inscription in ten tiny letters. Beneath bull the letter T.  
a. ANS — E. T. Newell Coll. 7.52  
b. Berlin 7.59

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- Additional specimens not listed.



## COINAGE AT ALEXANDRIA TROAS UNDER ANTIOCHUS HIERAX

(SEE PLATE VII)

In his very comprehensive treatment of the coinage of Antiochus Hierax in *Western Seleucid Mints*, Mr. Newell states that Alexandria Troas was the principal mint of Hierax in the Hellespontine district.<sup>1</sup> The *parasemon* of the city, a feeding horse, occurring in the exergue of tetradrachms of Antiochus II and Antiochus Hierax, makes its issues during the reign of these two rulers easily distinguishable; Seleucid-type tetradrachms of Alexandria Troas are much more frequent than those with the type and name of Alexander. A single tetradrachm of Alexander with the feeding horse symbol in the exergue appears on Plate LXXV (here, PLATE VII, 1) of *Western Seleucid Mints* and is mentioned on page 345 with the explanation that its interpolation at this point is due to its bearing the monograms which occur on the Seleucid-type coins immediately preceding it in the list. The coin was not described in the catalogue, probably because it was not strictly Seleucid nor was its whereabouts stated; the chance location of a duplicate cast disclosed that it is in the Florence Collection. This piece is listed by Müller (No. 924), and it is recorded by Eckhel (*Numi veteres anecdoti*, Tab. VI, 1) in a line engraving. Müller mentions only one other variety (from a cast), having the feeding horse to left in the exergue and monograms, the first of which might have been a reading for *Western Seleucid Mints*, 1592, and the second *Western Seleucid Mints*, 1589.

<sup>1</sup> E. T. Newell, *Western Seleucid Mints*, p. 393.

In 1949, our Museum secured from the Jameson Collection the tetradrachm of Antiochus Hierax (PLATE VII, 5) having the same monograms as the Florence coin,<sup>2</sup> and with the Gautier Collection we added an example of a variety listed by Mr. Newell (PLATE VII, 6) but better in condition than the two specimens known to him,<sup>3</sup> and another (shown on PLATE VII, 7) having monograms not listed and of notably poorer style. We have now acquired another Alexander-type tetradrachm (PLATE VII, 4) which bears the monogram of one of the magistrates on the Florence coin. The second monogram is new. On our new tetradrachm, however, the feeding horse in the exergue stands on a fulmen. This at first looked disturbing but proved quite the contrary, for the horse above the thunderbolt occurs for a considerable period as a type on the bronze coinage of Alexandria Troas (PLATE VII, 2). There is also shown on the plate (PLATE VII, 3) a stater with this symbol without base-line or fulmen but with monograms which in Mr. Newell's judgement connects it with an earlier tetradrachm bearing the winged diadem associated with Hierax. Apparently, it should be assigned to the period in which this little group appeared.

We have then three tetradrachms and one stater, two — possibly three — of which come close to the final issues under Hierax in Mr. Newell's arrangement, and the stater which he tentatively placed earlier. All four must come during the dominance of Hierax (246–227 according to Head) and although the possibility that they may have come immediately after his downfall is to be considered, it is safer to say that they seem to have been minted about 230. It is obvious that this gives us a very valuable criterion for comparisons with the issues of other city states which minted Alexander-type

<sup>2</sup> Collection R. Jameson, 1675.

<sup>3</sup> E. T. Newell, *op. cit.*, p. 338, no. 1574.

tetradrachms about this time. Rouvier<sup>4</sup> lists tetradrachms of Aradus bearing Phoenician dates corresponding to 240–210, but we can hardly expect any great similarity of style between the issues of these two cities, as might have been the case had there been a market common to both. It has been suggested that the introduction of the cistophori took place almost immediately after the death of Hierax. It is worthy of notice that these Alexander-type issues for Alexander Troas as well as those of Hierax do not have the hammered edges which are common to the later spread-flan Alexanders. Both the Florence coin and our own are marked by a flat fabric and a breadth of treatment which are distinctive. The encircling beaded border on the obverse, which is wanting on the reverse, is another mark of possible significance.

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<sup>4</sup> Jules Rouvier, *Numismatique des villes de la Phénicie*, p. 143.





## THE BEGINNING OF THE ATHENIAN NEW STYLE COINAGE

(SEE PLATES VIII-X)

In 1935 a hoard of silver coins was found by a peasant at or near the Greek village of Anthedon on the Boeotian coast. It was soon dispersed and no published record exists. There is, however, sufficient evidence available concerning the constitution of the hoard to show that it is of crucial importance for the chronology of the Athenian New Style series and, therefore, an attempt at reconstruction is definitely worthwhile even though seventeen years have intervened.

The material at the disposal of the writer consists of a number of casts assembled by M. L. Kambanis as well as coins acquired by Edward T. Newell and now in the collections of Mrs. Newell<sup>1</sup> and the American Numismatic Society. In addition there are notations forwarded to the Society by individuals who saw portions of the hoard shortly after it appeared on the market.

Although uncertainty exists in many cases as to the exact number of pieces of a given type, it seems evident that the original find was composed exclusively<sup>2</sup> of Euboean and Athenian issues as follows:

<sup>1</sup> I am deeply indebted to Mrs. Edward T. Newell who has generously made her important Euboean and Athenian material available and who has been most helpful in supplying information regarding the hoard.

<sup>2</sup> At the time the hoard was discovered, one correspondent abroad wrote that it was said to have included tetradrachms of Demetrius Poliorcetes, but these are mentioned in no other report. A listing from Ravel itemizing the Athenian and Euboean issues added that the writer had been told there were other coins — 1 didrachm and 1 drachm of Paros, 1 didrachm of Naxos and 1 didrachm of Carystos (as *BMC*, Pl. XIX, 2) — but that he was certain they were not part of the find.

## CHALCIS

*Tetradrachms*

1. Female bust r., veiled and wearing stephane. Letter **A** in the upper folds of the veil.<sup>3</sup> Border of dots.

*Rev.* **ΧΑΛΚΙ/ΔΕΩΝ** above and below Hera (?) in quadriga r. **ΘΞΕ** in upper fields. All in oak wreath.

(4 or more specimens: 1 in collection of Mrs. E. T. Newell ex ETN — 17.09 gr.  $\searrow$  — PLATE VIII, 1)

*Octobol*

2. Female head. r, hair rolled and in long locks on neck. Border of dots.

*Rev.* **ΧΑΛΚΙ** Eagle and serpent r. In front, **ΜΕΝΕΔΗ**.

(1 specimen)

## ERETRIA

*Tetradrachms*

1. Bust of Artemis r., bow and quiver at shoulder. Letters **ΦΑ** on the hair-band. Border of dots.

*Rev.* **ΕΡΕΤΡΙΕΩΝ** above filleted bull standing r. **ΑΓΝΩΝ** below. All in laurel wreath.

(1 specimen: Kambanis cast,<sup>4</sup> PLATE VIII, 2)

<sup>3</sup> One of the four or more Chalcis tetradrachms (PLATE VIII, 1) has the **A** on the veil; another is described as having no letter but a veil "decorated with cross lines." There is no record as to the other coins.

<sup>4</sup> At this point several uncertain aspects of the hoard should be mentioned. From the correspondence on file at the American Numismatic Society, we know that Kambanis was at one time assembling casts of the Anthedon coins with the intention of publishing the hoard. Among his Athenian New Style casts, now in the possession of the Society, there are replicas of two Eretria tetradrachms and one Eretria octobol (PLATE VIII, 2, 4, 6). All three are unlabelled. Inasmuch as there were no other extraneous casts with the New Style material (except for two Athenian decadrachms) and in view of the condition and types of the three casts which are identical with known Anthedon pieces, it is highly probable that they represent coins from the hoard.

With regard to two of the ANS ex ETN coins (PLATE IX, 10 and PLATE X, 14), there is a similar situation. Both pieces were purchased early in 1936 from a dealer who handled part of the Anthedon Hoard. Both, however, are labelled as having come from the "Demotika Hoard." These are the only coins from the Newell collection identified with this hoard, to which I can find no reference elsewhere. The types and condition of the two specimens correspond exactly with pieces known to have been found at Anthedon. Furthermore, there was, in the beginning at least, some uncertainty as to the provenance of the Anthedon find. One early report located it in Euboea, and one of the first New Style issues from the Newell collection (PLATE IX, 8) is ticketed "1935 Hoard

2. Similar but with the earring of Artemis cut in the form of a monogram,  $\Phi$ , and no letters on the hair-band.  $\Phi\text{ANIAS}$  below the bull.  
(3 or more specimens: Mrs. E.T. Newell ex ETN—16.91 gr.  $\swarrow$ —PLATE VIII, 3; Kambanis cast, PLATE VIII, 4; ANS ex ETN—16.81 gr.  $\nwarrow$ —PLATE VIII, 5)
3. Similar but no letters or monogram on the obverse.  $\Phi\text{I}\Lambda\text{I}\Pi\Pi\text{O}\Sigma$  below the bull.  
(1 specimen)
4. Similar to No. 3 but  $\chi\text{AP}\text{I}\Delta\text{A}\text{M}\text{O}\Sigma$  below the bull.  
(1 specimen)

*Octobols*

5. Head of Artemis r., bow and quiver at shoulder.  
*Rev.*  $\text{EPETPI}$  above recumbent bull r.  $\text{A}\Gamma\text{N}\Omega\text{N}$  below.  
(1 specimen: Kambanis cast, PLATE VIII, 6)
6. Similar but  $\text{EPETPIE}\Omega\text{N}$  above the bull and  $\Phi\text{ANIAS}$  below.  
(2 or more specimens)
7. Similar to No. 6 but  $\Phi\text{I}\Lambda\text{I}\Pi\Pi\text{O}\Sigma$  below the bull.  
(1 specimen: Mrs. E. T. Newell ex ETN—5.75 gr.  $\swarrow$ —PLATE VIII, 7)

ATHENS

*Tetradrachms*

1. Head of Athena Parthenos r. in crested Attic helmet. Biga on neckguard.  
*Rev.*  $\text{A}\Theta\text{E}$  Owl standing on amphora.  $\text{N}$  to l. and  $\Delta$  or  $\text{A}$  to r. All in laurel wreath.  
(2 specimens: ANS ex ETN—17.00 gr.  $\uparrow$ —PLATE IX, 8; Kambanis cast, PLATE IX, 9)
2. Similar but without biga on helmet. Border of dots.  
*Rev.*  $\text{A}$  and  $\Sigma$  to l.,  $\text{M}$  to r. of owl. Kerchnos symbol in upper right field and  $\beta\acute{\alpha}\chi\chi\text{o}\varsigma$  below amphora.<sup>5</sup>

from Dom.” As to that particular coin there can be no doubt of the origin. A cast of the same piece is in the Kambanis collection, clearly marked “Anthedon.”

Considering all the circumstances, I have little hesitation in including the two ANS ex ETN coins and the three Kambanis casts in the Anthedon Hoard, but it must be placed on record that there is no absolute certainty.

<sup>5</sup> Two specimens of this kerchnos issue came from Anthedon. In two separate accounts of the hoard, they are described merely as having monograms and a kerchnos symbol on the reverses. Since the one piece has disappeared, there is no way of knowing whether it duplicates the type of the ANS ex ETN coin or whether it belongs to an earlier or a later stage of the striking (See PLATES IX and X, A-D and 10 for the variations of the kerchnos issue and page 27 for a discussion of their sequence).

3 Numismatic Notes

(2 specimens: 1 in collection of ANS ex ETN — 17.05 gr. ↑ — PLATE IX, 10)

3. Similar to No. 2.

*Rev.* ⌘ to l., ΦΑΝΙ to r. of owl. No symbol.

(5 specimens: 1 in collection of Mrs. E. T. Newell ex ETN — 16.80 gr.  
↑ — PLATE X, 11; 2 among Kambanis casts, PLATE X, 12-13)

4. Similar to No. 2 but with biga on helmet as in No. 1.

*Rev.* ⌘ to l., Ν to r. of owl. No symbol.

(1 specimen: ANS ex ETN — 17.09 gr. ↑ — PLATE X, 14)

The most significant aspect of the New Style pieces from the Anthedon Hoard is that only four issues are represented and those the first four of the entire coinage. The order of the listing above follows that proposed by A. R. Bellinger (*Hesperia*, Suppl. VIII, 1949, pp. 8 and 12 f.). To his convincing arguments for this arrangement, some further evidence can be added.

No. 1 of the Athenian series is clearly the earliest issue. Three obverse dies are known (PLATE IX, 8-9 and Lederer collection as published in the *Bulletin de correspondance hellénique*, LXII, 1938, Pl. XVIII, 6). All show the same youthful goddess head without a circle of dots and on all the die engraver with charming phantasy has cut a tiny biga on the flap of Athena's helmet.

The kerchnos issue, No. 2, may cover two years but this seems unlikely. Its first obverse die (Athens, PLATE IX, A) is closely related in style to the preceding issue. The biga on the helmet has been abandoned but dots have not yet been placed around the Athena head. On the reverse of this initial die the monograms ⌘<sup>6</sup> and Μ appear in the left and right fields, supplemented by a kerchnos at the upper right and a βακχος beneath the amphora. This die is followed by a unique piece

<sup>6</sup> The monogram has been incorrectly read as ⌘ (BCH, LXII, 1938, p. 83; Pl. XVIII, 7). In the illustration the monogram is indistinct but a specimen in the British Museum from the same obverse die has a clear ⌘ in the left field and close scrutiny of a cast of the Athens coin confirms the reading.

(ANS ex ETN from Anthedon, PLATE IX, 10) which has a circle of dots on the obverse and two monograms,  $\mathcal{A}$  and  $\mathcal{E}$ , in the left field, replacing the  $\mathcal{P}$  of the earlier die. In other respects the reverse is unchanged. The same obverse die is coupled with a reverse on which  $\mathcal{A}$  alone appears in the left field (Schlessinger Sale 13, 1935, No. 901; PLATE IX, B). Two other obverse dies with the  $\mathcal{A}$ - $\mathcal{M}$  combination on the reverses are known (London, PLATE IX, C; Giesecke, PLATE X, D).

The relative order of the three types within the kerchnos issue is fixed not only by the style of the obverse heads which indicates that the ANS three-monogram coin belongs directly after the early die without dots, but also by the fact that the obverse die of the Schlessinger specimen is in a later stage than that of the ANS piece. The flaw on the cheek is more pronounced and the imperfection just in front of the mouth is not visible on the three-monogram coin. One might assume that at the beginning of the year the convention of an Athena head without dots was retained from the first issue by magistrates  $\mathcal{P}$  and  $\mathcal{M}$ . Sometime later  $\mathcal{P}$  died or withdrew from office. Two men were then called in to take his place, and it was on their initiative that the border of dots was added to the obverse. Shortly thereafter, the issue was resumed in normal fashion, with  $\mathcal{E}$  dropping out and  $\mathcal{A}$  continuing to serve as mint magistrate.

In style the obverses of the  $\Phi$ ANI issue are close to the last dies of the kerchnos group (compare Nos. C and D with E and 11 on PLATES IX and X). Of greater import is the circumstance that on one reverse die, the only one with  $\Phi$ ANI in monogram form (London, PLATE X, E), there is a  $\beta\acute{\alpha}\kappa\chi\omicron\varsigma$  beneath the amphora — surely a carry-over from the kerchnos issue.

No. 4 must follow the  $\Phi$ ANI coinage. For this issue some dies have no symbol; a cornucopiae appears on others. As Bellinger points out, the policy as to symbols is not fixed at

3\*

the beginning of the New Style coinage. The first issue is without one, then comes the kerchnos and βάκχος, next the ΦΑΝΙ issue without symbol, and succeeding it, a striking with either no symbol or a cornucopiae. Subsequently the use of the symbol is invariable for the monogram series. This in itself suggests that No. 4 is correctly placed, but there is another reason for bringing it close to the beginning of the coinage. On one die, of which the ANS coin from Anthedon is an example (PLATE X, 14), there is a recurrence of the small biga on the neckguard of the helmet, the distinctive marking of the first issue.

The condition of the Athenian coins like that of the Euboean issues is uniformly excellent. A numismatist in Greece at the time the hoard was discovered described all of the pieces as being FDC. One does note a slight variation in wear as between the first New Style issue where the plumage of the owl, for example, is somewhat rubbed and the later tetradrachms where it is strikingly sharp, but on the whole the coins and casts which the writer has seen are in a very fine state of preservation. There can be little doubt that the Athenian and Euboean issues were contemporary and that the hoard was laid away four or five years after the beginning of the New Style coinage.

While the Athenian tetradrachms *per se* provide no evidence for dating the find, their association with the rare Euboean money is of paramount interest. It is almost universally agreed that the latter coinage was initiated after the proclamation of the freedom of the Greek cities by Flamininus in 196 B.C.<sup>7</sup> For the first time in more than a century Euboea was

<sup>7</sup> Edward T. Newell in publishing a hoard of Euboean bronze (*Numismatic Notes & Monographs* 68, pp. 1-23) favors a slightly later dating for the beginning of the silver issues, c. 90 B.C. Although he does not deal with the problem at length, Newell suggests that the change in Euboean coinage after the proclamation of Flamininus is for a time reflected only in the bronze issues and that the silver denominations appeared some

completely free of Macedonian domination and in a position to strike the large silver denominations so often symbolic of newly-acquired autonomy. Since so few tetradrachm types are known for Chalcis and Eretria — two for the former and eight for the latter — the presumption is that the coinage of these issues at both mints was a limited one. Furthermore, it would seem to have been of short duration if one considers that 1) The coins are of homogeneous style 2) Four of the Eretria issues in comparable condition were found together at Anthedon 3) The same die cutter worked at Eretria on dies of three different magistrates 4) Four of the monetary officials of Eretria can be identified with prominent citizens of that community mentioned in inscriptions of the early second century B.C.<sup>8</sup> While it cannot be maintained with any certainty that the brief Eretrian tetradrachm series was struck

years later, probably coinciding with the revival of autonomous silver in Asia Minor after the battle of Magnesia. The crux of the argument involves the association of the second century silver of Eretria with the bronze of ΑΡΙΣΤΟΝΙΚΟΣ, the latest Eretrian issue of the Euboea Hoard (*op. cit.*, Pl. I, 177). While the contents of the hoard compared with an earlier one published by N. Pappadakis (*Arch. Delton*, 1915, pp. 145-147) and the evidence of comparative wear make it certain that Newell's arrangement of the several bronze issues is beyond dispute, there seems no cogent reason why one issue cannot belong to the period immediately after 196 B.C. rather than to the last years of the Macedonian occupation, an alternate dating which Newell himself advances as a possibility. The bronze issue in question — with ΜΑΝΤΙΑΩΡΟΣ below a recumbent bull on the obverse and ΕΡΕΤΡΗ or ΕΡΕΤΡΗΩΝ above a vine-branch with grapes on the reverse — is closely connected in style, inscription, and types with the silver coinage. On the octobols of Eretria there is a recumbent bull very like that of the bronze money; on the tetrobols one finds the vine-branch with grapes below the ethnic ΕΡΕΤΡΗ or ΕΡΕΤΡΗΩΝ. It would seem that the silver denominations could be associated with the ΜΑΝΤΙΑΩΡΟΣ bronze as plausibly as with the later ΑΡΙΣΤΟΝΙΚΟΣ issue.

I should like at this time to express my gratitude to Dr. William P. Wallace who has worked over both the Anthedon and the Euboean bronze hoards with me. His intimate knowledge of the Euboean coinage has been of the greatest assistance.

<sup>8</sup> Points 3 and 4 are discussed by Wallace ("Some Eretrian Mint Magistrates", *Phoenix*, IV, 1950, pp. 21-26). The Α monogram which forms the earring of Artemis on tetradrachms of Phantias is to be associated with the letters Φ Α cut on the hair-band of the goddess on tetradrachms of Hagnon and Damasias. As to the magistrates, Phantias, Hagnon, Amphinikos and Charidamos are names of prominent Eretrian citizens of the second century B.C.

annually, still it cannot be ignored that in the Anthedon Hoard exactly four Eretria issues were found in conjunction with the first four annual issues of the Athenian New Style.

If the attribution of the Euboean money to the period immediately after 196 B.C. is historically plausible, the same can be said for the beginning of the Athenian New Style series. While Athens had been freed from the more galling aspects of Macedonian control, notably enemy garrisons, at an earlier period, conditions remained far from settled, politically or economically, during the last decades of the third century. There was always the threat of Macedonian intervention if not of outright war. It was only after Cynoscephalae had broken Philip's hold on Greece that Athens, the friend and supporter of Rome, could have experienced any real feeling of security. Undoubtedly the circumstances were then favorable for a reorganization and expansion of Athenian currency.

It remains to be seen whether a burial date can be suggested for the Anthedon Hoard. Although one hesitates to put too much weight on political or military factors involved in the laying away of coins, it is nevertheless tempting to associate this burial either with the occupation of Euboea by Antiochus III late in 192 B.C. or with his evacuation of the island some months afterwards in the face of the advancing Romans. Anthedon, only a short distance from Seleucid headquarters at Chalcis, would have been uncomfortably close to the manoeuvring armies if not in the direct line of march. The date in question — allowing for the circulation of four or five issues of coinage — would accord perfectly with an introduction of the New Style and the Euboean series about 196 B.C.<sup>9</sup>

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<sup>9</sup> The 196 B.C. dating is in conformity with the rejection in recent publications



of the traditional 229 B.C. date for the inception of the New Style series. It was Kambanis' belief that these coins were not struck before the beginning of the second century B.C. (*BCH*, LVIII, 1934, p. 137), and Bellinger (*op. cit.*, pp. 6-30) suggests that they may have started as late as 180 B.C. A further indication that a second century date is correct for the initiation of the New Style is to be found in two important articles by L. Robert in which he identifies the *stephanephoros* and *taurophoros* money of the Delian inscriptions with the spread flan types of Athens and Eretria (*Études de numismatique grecque*, 1951, pp. 105-135 and pp. 143-178). Robert points out that the *phoros* designations applied to these and other more or less contemporary coinages are not, up to the present time, known before the beginning of the second century B.C.



## WORKSHOPS OR MINES

(SEE PLATE XI)

One of the many problems of the Athenian New Style coinage concerns a series of letter combinations appearing on the reverses of all except the earliest of the spread flan tetradrachms. These consist usually of two letters — although there may be three or even four — placed below the amphora or occasionally in the left field. The tabulation on page 34, showing the distribution of the various combinations throughout the New Style period and the number of annual issues with which each is associated,<sup>1</sup> makes it clear that these are the initial letters of words and that they refer not to individuals but to something of a permanent nature.

No publication of the New Style series has discussed the letter combinations in any detail, but there is general agreement that they stand either for the workshops of the Athenian mint or for the mines from which the silver came. The first theory was apparently held by M. L. Kambanis whose articles on die sequences<sup>2</sup> consistently use the term *atelier* for the

<sup>1</sup> The compilation is based on originals, casts and photographs of over 3,000 New Style tetradrachms. Sundwall's listing (*Untersuchungen über die attischen Münzen des neueren Stiles*, 1908, pp. 24-148) and that of Svoronos (*Trésor des monnaies d'Athènes*, Index V as prepared by Pick) supply a few combinations which have not been included. Some can be corrected from the material now on hand; others involve strange and somewhat suspicious readings which are better omitted for the time being, pending future verification or emendation. There is a possibility that ΖΩ, which is clearly marked on two tetradrachms of the ΑΜΜΩ-ΔΙΟ (cornucopiae) issue, should be listed separately, but it seems more likely that the Ζ is a carelessly cut Σ. With respect to the ΠΠ combination it is impossible to catalogue it accurately. Both ΠΠ and ΠΠΟ occur on dies of three issues of the early two-magistrate group; ΠΠ and ΠΠΩ are used for one three-magistrate issue. All other dies have ΠΠ alone.

<sup>2</sup> *Arethuse*, fasc. 21, 1928, pp. 121-135; *Bulletin de correspondance hellénique*, LVI, 1932, pp. 37-59; LVIII, 1934, pp. 101-137; LIX, 1935, pp. 101-120; LX, 1936, pp. 101-117; LXII, 1938, pp. 60-84.

	<i>MONO- GRAMS</i>	<i>TWO MAGIS- TRATES (Early)</i>	<i>THREE MAGIS- TRATES</i>	<i>TWO MAGIS- TRATES (Late)</i>
ΑΝ	4	1	2	1
ΑΠ, ΑΠΟ	—	2	16	8
ΑΡ	2	2	1	1
ΓΛ	—	—	2	—
ΔΑ	—	—	2	2
ΔΗ	—	—	5	1
ΔΙ, ΔΙΟ	—	1	16	13
ΕΜ, ΕΜΦ	—	3	—	—
ΕΠ, ΕΠΙ	—	—	1	2
ΕΡ	3	—	2	5
ΕΥ	3	5	—	—
ΗΡ, ΗΡΑ	—	2	3	6
ΘΥ	—	1	—	—
ΙΣΙ	—	—	—	7
ΚΕ	1	—	—	—
ΚΤ, ΚΤΗ	—	2	—	—
ΜΕ, ΜΕΝ, ΜΕΝΕ	2	5	36	—
ΜΗ	—	5	4	—
ΜΟ	—	1	—	—
ΠΕ, ΠΕΡ	—	—	16	2
ΠΡ, ΠΡΟ, ΠΡΩ	2	4	2	2
ΣΟ, ΣΟΛ	—	—	22	1
ΣΤ, ΣΤΕ	—	—	2	1
ΣΦ, ΣΦΑ, ΣΦΑΙ	4	2	26	—
ΣΩ	—	5	18	10
ΤΙ, ΤΙΓ	2	—	—	—
ΦΙ	—	—	—	1 or 2

markings beneath the amphora. On the other hand Sundwall (*op. cit.*, p. 18, note 2) and Svoronos (*Journal internationale d'archéologie numismatique*, XVIII, 1917, p. 119) preferred to regard the letters as related to the mines supplying the bullion for the coinage.

Early in 1951 the American Numismatic Society was fortunate in acquiring the casts of New Style tetradrachms which Kambanis had assembled for his studies. This collection has provided the writer with the basic material for a further attempt at arranging the New Style coinage by die combinations and other criteria. As a preliminary step all of the annual issues were sorted by obverse and reverse dies, and in the course of this undertaking it became increasingly evident that the workshop theory is untenable. It seems worthwhile to discuss this at some length in advance of the general study since the problem is in a sense a separate one with less bearing on the chronological classification than has sometimes been supposed.

At the very beginning of the division by obverse dies, an interesting fact emerged. The same obverse is frequently coupled with reverses bearing totally different letter combinations beneath the amphora. For the most part only two combinations are involved, but in nine annual issues, there are three combinations connected with the one obverse, and one issue — that of ΕΠΙΓΕΝΗ-ΣΩΣΑΝΔΡΟΣ — has four! This last instance is most remarkable. During the month E while ΗΛΙΟΔΩ was third magistrate, one obverse die (No. 15)<sup>3</sup> was struck in conjunction with at least six different reverse dies: one marked with ΠΡ (Schlessinger Sale 13, 1935, No. 934; PLATE XI, 1), one with ΔΙΟ (Paris; PLATE XI, 2), two with

<sup>3</sup> Throughout the article reference has been made by number to specific obverse and reverse dies. This has been done to avoid ambiguity in certain instances. The designations represent the present state of the die classification and are not final in any sense.

ME (Paris; PLATE XI, 3. Also De Luynes No. 2082), and two with HPA and HP (Vienna; PLATE XI, 4. Also London).

In all there are 179 obverse dies associated with different reverse markings, and this phenomenon occurs throughout the New Style series — for every one of the three-magistrate issues, for all five of the monogram issues which have letters below the amphora, for all but two of the early two-magistrate group and for five of the late two-magistrate issues. Moreover, with eleven exceptions, the variations are concentrated within the span of a single month.<sup>4</sup>

Assuming that the letters refer to *officinae*, it is difficult to understand the restlessness of obverse dies at the Athenian mint, particularly difficult to see why Die 15 of ΕΠΙΓΕΝΗΣΩΣΑΝΔΡΟΣ should have been used for part of the month in workshop ΠΠ, then shifted to ΔΙΟ, thence to ME and finally to HP. The only plausible explanation would be a random allocation of dies to the various workshops on a day to day basis. Such a supposition, however, is in conflict with the general picture. Despite the frequency with which the variations occur, they are still exceptions rather than the rule. Ordinarily an obverse die from its first striking was associated with one particular combination of reverse letters and this relationship remained constant, with perhaps an occasional minor lapse, for the lifetime of the die.<sup>5</sup> An outstanding case in point is Die 2 of ΠΟΛΕΜΩΝ-ΑΛΚΕΤΗΣ which

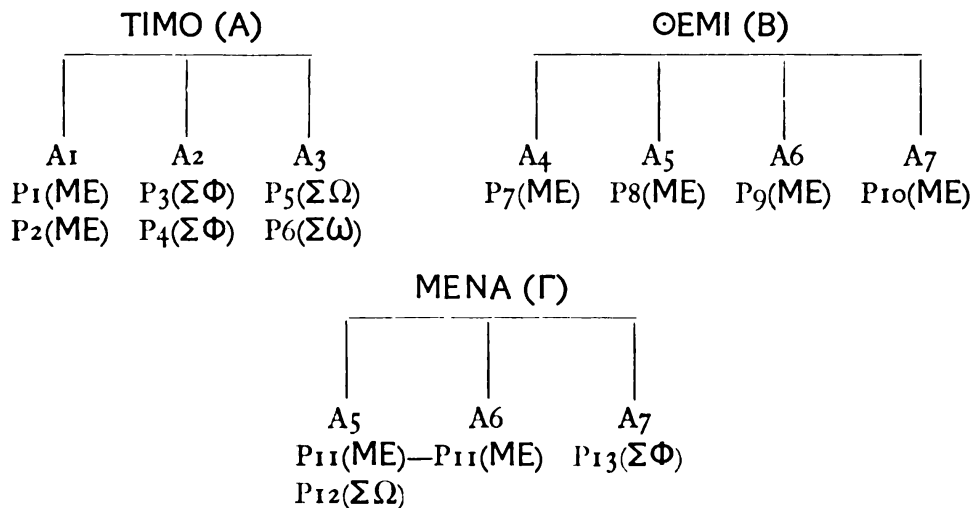
<sup>4</sup> I understand that F. H. Armstrong has independently made the same observation regarding the use of one obverse die with varied reverse letters. He is now publishing a New Style hoard at the Royal Ontario Museum and has generously made photographs of his material available.

<sup>5</sup> This fact led Kambanis to state (*Arethuse*, 1928, p. 130), "Cette parenté des monnaies ne se retrouvant pas entre des émissions ayant des sigles différents, il en résulte aussi que chaque sigle devait appartenir exclusivement à un atelier." It is a remarkable circumstance that all of the links within and between issues as noted by Kambanis involve coins with the same markings beneath the amphora, but these can now be supplemented by many others which have diverse letter combinations.

was combined during the first five months of the year with fourteen different reverses. In one instance the letter combination is illegible; the other thirteen reverses are consistently marked  $\Sigma\Omega$ . Furthermore, the letters, whatever their import, must have served some control function or there would have been little reason for adding them to the reverses, less reason still for recutting them as was often done. A monetary control of itself necessarily entails a careful supervision of dies or its purpose is vitiated.

A considerable amount of additional evidence against the workshop theory is provided by individual and chronologically related issues as well as by the pattern of the letter combinations throughout the New Style coinage. Let us consider first some of the irregularities within individual issues which are not easily reconciled with the workshop premise.

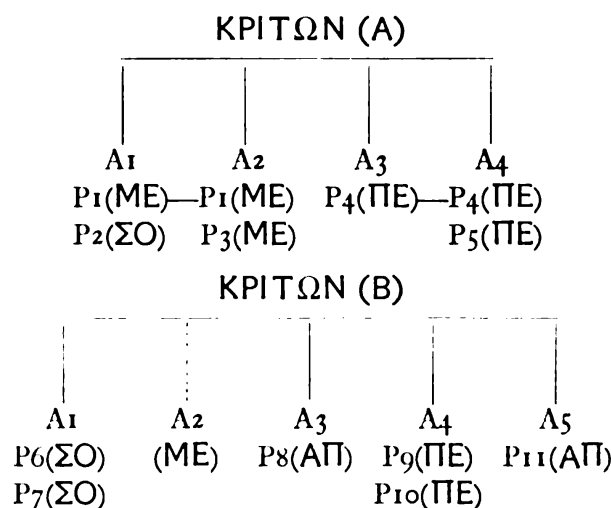
For the early months of the ΚΑΡΑΙΧ-ΕΡΓΟΚΛΕ magistracy at least seven anvil and thirteen punch dies were in operation as follows:



The crux of the problem here is clearly the association of only one letter combination, ME, with all four obverse dies of

month B, in striking contrast to the practice during A and Γ. One might suppose that the obverses were used in succession were it not that three of them carry over into the following month, Γ.

A somewhat similar picture is presented by the initial strikings of ΔΑΜΩΝ-ΣΩΣΙΚΡΑΤΗΣ:



The inclusion of A 2 among the dies of month B, even though no example has as yet been found, is based on the fact that this obverse with a ME reverse is known for Γ and was, therefore, almost certainly in use during the preceding month. For the rest, four obverse dies are in operation at the beginning of the year, two with ME and two with ΠΕ reverses. Later A<sub>1</sub>, its ME reverse having been transferred to A<sub>2</sub>, shifts to the ΣΟ lettering. A similar change may have taken place in the course of this first month with respect to A<sub>3</sub>, but there is no present record of an A—ΑΠ combination coupled with that obverse. During B the system is orderly throughout, with A<sub>5</sub> replacing A<sub>3</sub> at some point and taking over the latter's letter combination.

The recutting of the letters beneath the amphora, which is common practice for many of the three-magistrate issues, is



not fundamentally inconsistent with the workshop theory, but there are exceptional cases. Obverse Die 14 for the annual issue of ΖΩΛΟΣ-ΕΥΑΝΔΡΟΣ is used only during month M. Four specimens with identical obverse and reverse dies have survived. On two coins the letter combination is ΣΟ; on the others ΣΦ has been cut over the ΣΟ. Then there is the last month of the ΑΦΡΟΔΙΣΙ-ΔΙΟΓΕ issue:

ΦΑΙΝΝΟΣ (M)				
Α <sub>9</sub>	Α <sub>10</sub>	Α <sub>11</sub>	Α <sub>12</sub>	Α <sub>13</sub>
P <sub>33</sub> (ΣΦ)	P <sub>34</sub> (ΔΙ) P <sub>35</sub> (ΔΙ)	— P <sub>35</sub> (ΔΙ)	P <sub>36</sub> (ΜΕ) P <sub>37</sub> (ΜΕ) P <sub>38</sub> (ΜΕ)	— P <sub>38</sub> (ΣΦ over ΜΕ) P <sub>39</sub> (ΣΦ)

Presumably Die 10 was replaced by Die 11, Die 12 by Die 13. While the first substitution offers no problem, the second is a case much like the recut reverse of ΖΩΛΟΣ-ΕΥΑΝΔΡΟΣ. If the letters represent *officinae*, one wonders why the dies were transferred from one to the other and the reverses carefully recut when it would ostensibly have been simpler to finish out the year's coinage in the original workshops.

Turning from the individual issues to the New Style series as a whole, one shares Sundwall's feeling that the erratic distribution of the letter combinations is sufficient proof that they cannot stand for workshops. Many of the markings, like ΘΥ, ΚΕ and ΤΙ, are inscribed on only one or two early issues and then disappear; others — ΦΙ and ΙΣΙ — do not appear at all until the end of the coinage. ΑΡ, although it extends over all four groupings, is connected with only six annual issues, while ΜΕ is used on thirty-six issues of the three-magistrate series alone. Strangely enough the greatest

variety occurs precisely where one would least expect it, on the early and late issues whose output was relatively light. In this respect, the table on page 34 is somewhat misleading. Many of the combinations listed under the three-magistrate heading are found only at the beginning or at the end of the group. The central core of the three-magistrate series, whose issues supply the bulk of the New Style coinage, uses exactly seven letter combinations: ΑΠ, ΔΙ, ΜΕ, ΠΕ, ΣΟ, ΣΦ and ΣΩ. For 34 of the 45 annual issues the markings are drawn exclusively from this limited selection.

As an example of the disparity between the number of letter combinations in use and the size of the individual issue, the coinage of ΔΗΜΗΤΡΙΟΣ-ΑΓΑΘΙΠΠΟΣ is of particular interest. This was evidently a very heavy striking. It is well represented in the material on hand and it contributes the largest number of pieces of any issue to the Halmyros Hoard. Even more significantly, its annual output required at least thirty-six obverse dies — about twice the normal number and eight more than are known for any other issue. The marked peculiarity of this emission is the simultaneous employment of three different third magistrates for certain months of the year.<sup>6</sup> ΑΠ has the longest tenure; his reverse dies are known for months Α through Μ. ΦΙ appears for Α, Β, Δ, Ε, and Ι. ΟΛΥ is recorded for Ε and Η. On some reverses there is no third magistrate — months Β, Ε, Η, and possibly Κ — but it is likely that the omission is a result of haste in cutting the dies or of an understandable confusion in the mind of the engraver as to which of the three officials was responsible.

At first it seemed as though this excess of third magistrates

<sup>6</sup> This extraordinary departure from the general practice is recorded by Kambanis (*BCH*, LVIII, 1934, pp. 106f.) and is commented upon by Bellinger ("The Chronology of the Attic New Style Tetradrachms," *Hesperia*, Suppl. VIII, p. 18f.). In both publications more months are given for ΦΙ and ΟΛΥ than the material available to me provides; undoubtedly the present listing is incomplete.

implied a coinage which stretched over two or three years under ΔΗΜΗΤΡΙΟΣ and ΑΓΑΘΙΠΠΟΣ. This, however, is impossible. One obverse die, No. 18, joins a reverse of ΦΙ for Ε and one of ΟΛΥ for the same month. Somewhat later, during Ι, reverses of ΑΠ and ΦΙ share the same obverse, No. 27. The three men must have carried out their duties during the course of a single year. This would seem another indication of the size of the issue. So much money was being struck that for certain months two or even three supervising magistrates were needed. Yet the issue of ΔΗΜΗΤΡΙΟΣ-ΑΓΑΘΙΠΠΟΣ makes consistent use of only five letter combinations: ΑΠ, ΜΕ, ΜΗ, ΠΕ and ΣΟ.<sup>7</sup> Many of the relatively minor issues of the early two-magistrate series show as much, if not more, variety.

A final argument against the workshop theory can be drawn from issues which are linked by identical obverse dies. For the most part there is a substantial correlation in letter markings for the coinages which Kambanis has arranged in sequence, but that is not true of the issues of ΚΤΗΣΙ-ΕΥΜΑ and ΔΗΜΗ-ΙΕΡΩ. The verified letter combinations for the two years are as follows:

ΚΤΗΣΙ-ΕΥΜΑ — ΕΥ, ΕΜΦ, ΜΕ, ΠΡ  
 ΔΗΜΗ-ΙΕΡΩ — ΕΥ, ΕΜΦ, ΜΕ, ΠΡ, ΑΝ, ΔΙ, ΗΡ, ΟΥ, ΜΗ, ΜΟ,  
 C Φ and ΣΦ, C Ω and ΣΩ

There would seem to be little difference in the output of the two issues. If anything ΚΤΗΣΙ-ΕΥΜΑ with thirteen obverse dies in use and forty-six surviving coins has a slight edge on ΔΗΜΗ-ΙΕΡΩ with thirteen dies and twenty-eight known specimens. Certainly it is difficult to see why the latter would have required eight additional workshops.

<sup>7</sup> A few examples of ΣΩ are cited by Kambanis and Sundwall. In view of the difficulty of distinguishing between ΣΟ and ΣΩ on worn coins and the fact that not one of the 79 specimens on hand shows a clear ΣΩ marking, the combination is somewhat doubtful and has been omitted for the present.

An even more striking illustration involves the issues of ΜΙΚΙ-ΘΕΟΦΡΑ and ΗΡΑ-ΑΡΙΣΤΟΦ. These share an obverse die and this new link provides the connection between the early two-magistrate and the three-magistrate series.

ΜΙΚΙ-ΘΕΟΦΡΑ                      Μ ΜΕ (Kambanis Coll.; PLATE XI, 5)  
 ΗΡΑ-ΑΡΙΣΤΟΦ-ΠΟΛΥΧ Α — (Paris; PLATE XI, 6)

The first issue has five letter combinations: ΑΡ, ΑΠ, ΜΕ, ΜΗ and Σ ; the second uses three: ΑΝ, ΗΡ and ΓΛ. In this instance it is a question not merely of adding workshops but of the closing of five at the end of one year and their immediate replacement by three totally different ones.<sup>8</sup>

If the letter combinations on the New Style coinage do not refer to workshops of the mint, is there any justification for associating them with the silver mines? In proposing this theory Sundwall and Svoronos cited the correspondence between the letterings on the coins and the names of mines at Laurium as they were then known from inscriptions. Since that time new epigraphical evidence, notably a long series of poletai records of mining leases, modifies the picture some-

<sup>8</sup> In the case of any particular annual issue there is always the chance that our record of letter combinations is incomplete. Still it seems doubtful that much new material will be added. Kambanis' New Style casts include 1699 pieces; these have been supplemented by 1516 specimens (coins, casts and photographs) collected by the writer. Despite the doubling of the evidence, there are comparatively few issues throughout the series as a whole where the same letter combinations do not occur on both lots of material. For ΚΤΗΣΙ-ΕΥΜΑ and for ΗΡΑ-ΑΡΙΣΤΟΦ the markings are identical. With the ΜΙΚΙ-ΘΕΟΦΡΑ issue, one combination — ΑΠ — is not found on the Kambanis casts. Sundwall's listing adds nothing new for the last issue, but it does provide different combinations for ΚΤΗΣΙ-ΕΥΜΑ and ΗΡΑ-ΑΡΙΣΤΟΦ. For the first, ΕΝ, ΕΝΦ and ΝΕ are given. It seems quite possible that the ΝΕ is a misreading for ΜΕ, while ΕΝ and ΕΝΦ, if they are clearly visible, may represent errors on the engraver's part, ΕΜ and ΕΜΦ having been intended. With respect to ΗΡΑ-ΑΡΙΣΤΟΦ, one instance of ΜΕ is cited, from the *JIAN*, IX, 1926, p. 264, and two of ΣΩ, from Copenhagen and Beulé. The only one of the three which can be checked is the Copenhagen piece of which Kambanis had a cast. The lettering is poorly preserved and nearly off flan, but the surviving traces seem to resemble ΓΛ more closely than ΣΩ, a reading which is perhaps supported by the fact that the same obverse die is used with a second reverse showing a clear ΓΛ.

what. At least eleven of the monetary combinations could conceivably be identified with Laurium mines as they appear in the Agora inscriptions recently published by Margaret Crosby (*Hesperia*, XIX, 1950, pp. 189-312).<sup>9</sup>

ΑΠ(Ο)	(Apolloniakon)	HP(A)	(Heraikon)
ΑΡ	(Artemisiakon or Archegeteion)	KE	(Kerameikon)
ΔΗ	(Demetriakon)	KT(H)	(Ktesiakon)
ΔΙ(Ο)	(Dionysiakon or Dioskourikon)	ΠΡ(Ο)	(Prospaltiakon)
ΕΡ	(Hermaikon)	ΦΙ	(Philemoniakon)
ΕΥ	(Eudoteion or Euteleion)		

The correspondence of eleven out of twenty-seven letter combinations is fairly high and deserving of notice although the coincidence cannot be pressed too hard in view of the fact that the mining inscriptions are all to be dated in the fourth century or the earliest years of the third. One might suppose, however, that the practice of identifying mines for leasing purposes was continued into the second century, and it is not impossible that some of the late fourth century cuttings were still providing a limited amount of ore in the later period. In this connection it is noteworthy that, with the exception of ΑΠ(Ο) and ΔΙ(Ο), all of the letterings listed above are of infrequent occurrence on the coins, and many of them are to be found only on the early or the late issues. Five of the seven combinations which are used exclusively for the bulk of the three-magistrate series do not appear in the fourth century records, an indication perhaps of new and rich workings whose

<sup>9</sup> Svoronos (*JIAN*, XVIII, 1917, p. 119) identifies ΑΘ with the Athenaikon, ΗΡΩ with the Heroikon and ΕΜΦ with the Emphilomelidon. I can find no certain examples of either ΑΘ or ΗΡΩ on the coins. Sundwall cites one coin with the first marking, but there is no way of confirming the reading. As for ΕΜΦ, in the fourth century at least it is not the name of a mine but a location — "in the property of the Philomelidai" (cf. *Hesperia*, XIX, 1950, p. 264, lines 43-44).

I should like here to express my gratitude to Miss Crosby and to Dr. John Young for much helpful information regarding the mines and the mining inscriptions.

discovery facilitated a monetary expansion in the mid second century.<sup>10</sup>

There is this also to be said for an association of the coin markings with the bullion supply. The puzzling inconsistencies which invalidate the workshop theory are resolved. The use of the same obverse die with different reverse letterings, the unusual instances of recutting, the distribution of the combinations with respect to adjoining issues and to the New Style series as a whole — all are intelligible in terms of the substitution of one lot of metal for another.

It is not enough merely to associate the letter combinations with the bullion. The addition of mine names to already overcrowded dies purely as a matter of record would be meaningless; one must assume that the designation of the source of the silver served a definite control purpose. At this time it may be premature to hazard any theory as to how this control operated, but it seems at least possible that it involved both the purity of the metal and an over-all accounting system on the part of the state.

When one considers the stages through which the silver passed from the time it left the mines until it was turned over to the storage vaults for issuance to the mint and subsequent striking, it is clear that the purity of the bullion was dependent on the honesty and skill of many individuals. No magistrate could actively supervise this processing in its entirety. Yet the mint official had the immediate responsibility, as the state had the ultimate one, for the probity of the coinage. Under the circumstances some system would be required whereby any given lot of bullion could be traced back to its source. Assuming that the ore from any one mine went

<sup>10</sup> It would be interesting to see if spectroscopic analysis of a large number of New Style coins would throw any additional light on different sources of metal for the three-magistrate period.

through definite channels for the various phases of the refining process and that throughout, it was consistently identified as the product of that particular mine, it would then have been relatively easy to control the quality of the metal.

Furthermore the same control marks would provide the state with a complete record as to how much metal from any given mine went to the mint and how much coined silver was delivered in return. So many ingots of bullion from Artemisiakon, for example, supplied to a certain Nikodemos, third mint magistrate during month A, tallied against so many minae of AP New Style tetradrachms. With a detailed and comprehensive accounting such as this, the possibilities of adulteration, loss or defalcation would be held to an absolute minimum.<sup>11</sup>

An identification of the letter combinations with the bullion rather than the workshops of the mint makes the chronological arrangement of the coinage somewhat more difficult in that one can no longer assume that a coincidence of letterings as between issues necessarily implies proximity in time. There is

<sup>11</sup> Ravel (*Les "Poulains" de Corinthe*, II, pp. 46–57) suggests a somewhat similar accounting system for the mint of Corinth at an earlier period. On fourth century staters, letters which may be the initials of mint magistrates are combined with a wide variety of symbols. Hoard evidence shows that the same official used different symbols on coins which are contemporary and that, therefore, the devices cannot be identified with annual emissions. The theory Ravel advances is that the ingots delivered to the mint were stamped with symbols corresponding to those which appeared on the coins and that the latter were subsequently checked by weight against the number of bars of bullion supplied to the individual mint official. This would explain both the use of different symbols by the one magistrate and also the recurrence of the same symbol on issues of different officials, under the assumption that unminted bullion was carried over from one man to his successor.

A stamped bar of silver from the Tarentum Hoard is cited by E. J. Seltman as proof of the practice of marking bullion at a very early period. In the course of the article (*JIAN*, XV, 1913, pp. 1–10) he interprets the letters of the alphabet on a series of Thurian staters as a control system based on a correlation of the markings on ingots and coins. For a different explanation of similar letters on staters of Poseidonia, see S. P. Noe, "A Group of Die-Sequences at Poseidonia," pp. 9–19 in the current issue of *Museum Notes*.

always the possibility that completely different sources of metal were tapped from year to year. Yet in a broader sense the letters are far more significant as a record of bullion than as an indication of the internal set-up of the Athenian mint. In time, with the establishment of a fixed sequence for the monetary issues, the letterings should contribute to our knowledge of the economic resources of Athens. Even now the outlines are clear. If one accepts a dating around 196 B.C. for the beginning of the New Style coinage,<sup>12</sup> the monogram and early two-magistrate series, covering a period of some thirty years down to 166 B.C., were dependent on the output of a considerable number of relatively unproductive mines. By 166 B.C., however, the exploitation of new and rich veins resulted in a far more extensive coinage and perhaps stimulated the expansion of Athenian commerce. Toward the end of the century the situation had deteriorated to such a degree that the mint was again forced to scrape together silver from diverse sources in order to meet the demand for Athenian currency.

MARGARET THOMPSON

<sup>12</sup> Evidence for this dating is presented on pages 23—31 of the current number of *Museum Notes*.



## CABIRI ON ARCHAIC COINS OF SAMOTHRACE

(SEE PLATE XII, 1-3)

The Jameson specimen of an early diobol of Samothrace was noted, among other valuable acquisitions for the Museum's collection of Greek coins, in the *Proceedings* of the American Numismatic Society of 1951.<sup>1</sup> The coin (PLATE XII, 1), "one of two known," had been published by its former owner in the admirable catalogue of his collection (Vol. IV, no. 2443).

In my publication of the Kiourpet hoard<sup>2</sup> — from which a stater and two other small coins of the Jameson Collection had originally come<sup>3</sup> — I dealt with this rare coin and, calling it a unique variety, described its reverse type as a "bearded head in Corinthian helmet within a square incuse, surrounded by strongly-dotted lines."<sup>4</sup> At that time I was not aware that there was a second specimen of this interesting type in the collection of Mr. Edward T. Newell. Informing me of this, the late Mr. Newell added that he was "pleased to see that in my own series I now have all the varieties represented in the hoard, except the large coins and possibly your Pl. XI, 10, though I have something very much like the latter piece." In the same letter Mr. Newell added further that, in further support of my thesis, he had always been "convinced that the bearded head on the reverse of your Plate XI, 3 does not wear

<sup>1</sup> *Proceedings of The American Numismatic Society*, 1951, p. 26.

<sup>2</sup> S. P. Noc, *Bibliography of Greek Coin Hoards*<sup>2</sup> (Num. Notes and Monographs 78), p. 152, no. 565.

<sup>3</sup> Cf. *Collection R. Jameson*, Vol. IV (1932), p. 27, note following no. 2444.

<sup>4</sup> *Transactions of the International Numismatic Congress*, 1936 (London, 1938), p. 111, no. 3, Pl. XI, 3.

a Corinthian helmet, but some sort of cap and is in actuality an interesting representation of a bearded *Cabirus*."

The acquisition of the Jameson diobol for the collection of the American Numismatic Society has offered me an opportunity to publish the above important remarks which its late President communicated to me after having received my article on the Kiourpet hoard. There can be no doubt that my description of the Jameson coin was incorrect and that the presumed "Corinthian helmet" is in fact some sort of cap, very appropriate for an early representation of a bearded Cabirus.<sup>5</sup> The pilos as the characteristic headdress of Cabirus seems to appear rather late in the history of its representation.<sup>6</sup> In any case, Mr. Newell's observation supports my attribution of the uninscribed small types of the Kiourpet hoard to Samothrace, as a hitherto unknown early coinage of the island of the *Samothrakes Theoi*.

Mr. Newell also called my attention to the possibility of explaining the type of one other coin in the hoard (the hemiobol, Pl. XI, 7 of my article) as another head of a bearded Cabirus. He stated that specimens in his own collection (PLATE XII, 2-3) showed the head to be not that of Athena but also of a bearded person wearing a spiked cap (like certain Thracians on the vase paintings). He believed that here, too, we have the representation of a bearded Cabirus. Here, again, I wish to express full agreement with Mr. Newell's better explanation of this somewhat unclear type, which thus fits in so well into the important archaic issues of the island.<sup>7</sup>

<sup>5</sup> On Cabiri on coins cf. H. von Fritze, "Biryti und die Kabiren auf Münzen," in *Zeitschrift für Numismatik*, XXIV (1904), p. 105 ff. A recent general treatise on the Cabiri is: Bengt Hemberg, *Die Kabiren* (Uppsala, 1950), 354pp. and 4 maps.

<sup>6</sup> The earliest coins with types of Cabiri wearing pilos known to von Fritze are electrum and gold staters of Cyzicus and Lampsacus of the fourth century B.C. Cf. Hemberg, loc. cit., pp. 146, 179f.

<sup>7</sup> The attribution of these coins to Samothrace was recently agreed to by E. S. G. Robinson in *Hesperia*, Supplement VIII (1949), p. 335; cf. B. Hemberg, loc. cit., p. 57.

The American excavations on Samothrace have not yet produced any numismatic material to confirm my conclusions drawn from the Kiourpet hoard.<sup>8</sup> Let us hope that the attribution of this late archaic coinage to Samothrace may be supported by new finds under controlled conditions on the island.

WILLY SCHWABACHER

<sup>8</sup> Cf., however, K. Lehmann-Hartleben, *AJA* XLIV (1940), p. 355.



## NOTES ON SOME COINS FROM ANTIOCH IN SYRIA

(SEE PLATES XII–XIV)

### *Cleopatra Selene and Antiochus XIII*

Female and male busts jugate; the female in front, i.e. nearer the beholder, veiled (?). Circle of dots.

*Rev.* To r. ΒΑΣΙΛΗΧΩΣ / ΚΛΕΟΠΑΤΡΑΣ / [...] ΗΝΗΘ to l. ΚΑΙ / [...] ΑΣΙΑΕΩΣ / ———. Tripod. Circle of dots.

15 mm. 3.27 gr.

PLATE XII, 4

The interesting coin described above was a gift to the collection of the American Numismatic Society from Dr. Henri Seyrig.

The third word of the inscription is certainly to be restored [CEΛ]ΗΝΗΘ. We have to do, therefore, with Cleopatra Selene, daughter of Ptolemy VII and Cleopatra III and successively the wife of her brother Ptolemy VIII, of Antiochus VIII, Grypus, of Antiochus IX, Cyzicenus, the half-brother of Grypus, and of Antiochus X, Eusebea, the son of Cyzicenus by an earlier marriage. But the position of the busts and the fact that the queen's name comes first in the legend show that the other portrait can be none of her husbands and, indeed, in spite of the indifferent preservation of the coin, it is obvious that the other portrait is that of a child. It must be that of her son who ruled for a little while as Antiochus XIII, Asiaticus. The coin is a complete analogy of the tetradrachms of an earlier pair of the same name, the mother and son Cleopatra Thea and Antiochus VIII (Newell, *Seleucid Mint of Antioch*, pp. 90f., Nos. 359–361).

It is probable that the coin was struck at Antioch in 92 B.C. It was in that year that Antiochus X was killed in battle by

the Parthians (Josephus, *Ant. XIII*, 13, 4, [371], is the most reliable account, though it is irreconcilable with those given by Eusebius, I [ed. Schoene], pp. 261 f., and Appian, *Syr.* 48 and 69). Antioch was presently occupied by his cousin Demetrius III, and in the year Oct. 92–Oct. 91 the city began to strike autonomous bronzes with the name of the city. In the interval, however, it is perfectly possible that the queen may have set up a regency for her young son. The fabric of our piece is very much like that of the smaller bronzes of Antiochus X (Babelon, *Les Rois de Syrie*, p. 201, No. 1536, Pl. XXVII, 10). The tripod, though so common a type that it is a poor guide, is appropriate to Antioch where it had appeared as early as Seleucus I, 300–280 B.C. (Newell, *Western Seleucid Mints*, p. 95, No. 917) and as late as Seleucus VI, 95–94 B.C. (*BMC Seleucid Kings*, p. 96, Nos. 8 f.). Since the magistrate's monogram is commonly to the left of the inscription, it is probably off the flan on our coin. The portrait of Antiochus is certainly more mature than he really was. Selene's third husband, Cyzicenus, died in 95 and since this was a child of her fourth, and since he had a younger brother, he must have been between one and three years old at this time. The portrait is certainly intended to look older than that, but there are many examples of likenesses of infants in the guise of boys on coins; the reasons of state against displaying the true age of the sovereign in such circumstances are obvious. A later date than 92 is impossible if the mint be Antioch, since the autonomous issue lasts until 73½ in the reign of Tigranes, and since when Antiochus XIII succeeded Tigranes he struck silver with no mention of his mother.

On the other hand the coin may be the product of some Cilician town where Cleopatra had taken refuge with her children. We have no direct information about her until 69 (which is too late to be a possible date for us), but it is clear

that she was still a person of some power. In 75 she could send her sons on an embassy to Rome of which we know from Cicero (*In Verrem* IV, 27–30). The appearance of our coin does not suggest Cilicia, but that is a subjective matter and of very little importance in dealing with an isolated phenomenon such as this. Certainly Cilician mints were used by the later Seleucids and Pompey reproached Asiaticus with having hidden in Cilicia while Tigranes ruled his kingdom (Justin XL, 2, 3). One must admit, therefore, that an unknown mint is a possible alternative to Antioch.

*Aulus Gabinus*

Head of Philip Philadelphus r., diademed. Fillet border.

Rev. ΒΑΣΙΛΕΩΣ ΦΙΛΙΠΠΟΥ on r.; ΕΠΙΦΑΝΟΥΣ ΦΙΛΑΔΕΛΦΟΥ on l. Zeus enthroned to l. holding in r. Nike with wreath, in l. scepter. Beneath throne Δ. In field l. ΧΒ. The whole surrounded by laurel wreath.

Tetradrachm, 15.8 gr., 15.35 gr.

PLATE XII, 5.

The series which Newell identified as Roman imitations of the Seleucid coinage of Antioch<sup>1</sup> begins, in his arrangement, with a tetradrachm on which the monogram in the field is ΧΒ instead of the mark of Antioch ΧϜ which occurs on the later varieties. In discussing the matter, Newell explains the unique monogram as “being composed of the letters ΑΥ for ΑΥ-τονόμου and Β, the whole an abbreviation, perhaps, for the expression ‘year 2 of autonomy’ — or some such formula. In other words, this variety was issued in the second Caesarian year between the arrival of Julius Caesar and October 1st of 47 B.C. when the third year commenced.” The phrasing shows that he was not quite satisfied with the explanation, but had nothing better to offer at the time.

The identification of the monograms on two similar tetra-

<sup>1</sup> E. T. Newell, “Pre-Imperial Coinage of Roman Antioch,” *NC*, 1919 pp. 69–113.

drachms as those of Crassus and Cassius<sup>2</sup> suggests the possibility that we may have to do here also with a Roman official, and this is strengthened when close inspection reveals that the monogram on two specimens in the Newell collection is actually  $\Lambda\Gamma$ . [Cf. PLATE XII, 6]. The addition of the  $\Gamma$  (which Newell noted in his tray with a surprised "sic!") disposes of the suggestion that B is a date and brings to mind the name of Aulus Gabinius, the legate of Pompey and governor of Syria, as proconsul from 57 to 55. This would be perfectly acceptable on the grounds of appearance. It has been pointed out<sup>3</sup> how very similar this issue is to those of Crassus and Cassius, but while previously it was placed last of the three in 47, it is quite as likely that it should have been the earliest of the three in 57-55, the others coming in 53 and 53-51. Such an arrangement would explain the monogram and would rid us of the embarrassing year B, represented by silver but not by bronze. Undoubtedly the occasion for the inauguration of the continuous dated series was the momentous visit of Julius Caesar, but we may now believe that it began in the Caesarian year  $\Gamma$  (October 1, 47-September 30, 46).<sup>4</sup>

In this connection it is worth commenting on a short series of bronze to which Newell referred *obiter dicta*.<sup>5</sup>

Head of Zeus r., diademed. Circle of dots

Rev. ANTIOXEΩN THΣ on r.; ΜΗΤΡΟΠΟΛΕΩΣ on l. Zeus enthroned to l. holding in r. Nike with wreath, in l. scepter.

In ex.  $\Lambda A$ ,  $\Lambda B$ ,  $\Lambda \Gamma$ ,  $\Lambda \Delta$

PLATE XII, 7-10.

The last date,  $\Lambda \Delta$ , is published in *BMC Galatia etc.*, p. 155, No. 32 among the coins of the Caesarian era, but Newell

<sup>2</sup> A. R. Bellinger, "Crassus and Cassius at Antioch," *NC*, 1944, pp. 59-61.

<sup>3</sup> A. R. Bellinger, *op. cit.* p. 60, Pl. VII, 2-5.

<sup>4</sup> This identification of Gabinius as the issuing authority has already been alluded to: *Excavations at Dura, Final Report VI, The Coins*, p. 202, note 23; H. Seyrig, *Syria XXVII* (1950) p. 15.

<sup>5</sup> Newell, *op. cit.* pp. 100f.



rightly argues that they are dated not by the Caesarian but by the Pompeian era. Recently the whole question of the eras of Antioch has been reviewed by Henri Seyrig (*Syria XXVII* [1950], pp. 5-15). He argues convincingly that the Pompeian era begins in 67-66, and he enlarges the group here shown by unpublished coins of the years 9, 10 and 17. As his chart on p. 13 makes clear, these bronzes of 58-7 to 50-49 are set off from the previous issues of 64-62<sup>6</sup> by difference of type; from the succeeding ones of 48-47<sup>7</sup> by difference of size, while all subsequent issues have the title "Autonomous" which these lack. The coins of Crassus and Cassius, therefore, are not isolated, but are part of a planned currency lasting nine years of which only the year 51-50 is not now represented by a known coin.

### *Syrian Tetradrachms of Trajan*

Two coins in the Newell collection seem to settle an old problem as to the place of minting of Trajan's Syrian tetradrachms. They are of the types numbered 151 and 153 by Waldemar Wruck (*Die Syrische Provinzialprägung von Augustus bis Traian*, pp. 194f.) Both are struck in Trajan's fifth consulate, the former with the head of Heracles on the reverse, the latter with the seated Tyche of Antioch. Although the first obverse is damaged and worn it is clear that both obverses are from the same die [PLATE XIII, 1,2]. These two reverse types, therefore, are products of the same mint. This conclusion is confirmed by study of these two series where sometimes dies not actually identical are so similar that they must be supposed to have been cut by the same hand. This is the case with two tetradrachms of 113-114 A.D., Wruck Nos. 168 and

<sup>6</sup> Newell's Nos. 6, 7, 9, 10.

<sup>7</sup> Newell's Nos. 20-22.

169, the former in the British Museum, the latter in the Newell collection [PLATE XIII, 3, 4]. Moreover, the Heracles head series is connected with the Eagle series by two obverse dies which cannot be identical since the type is different, but which still show unmistakably the work of a single hand. They are Wruck Nos. 156 and 161, the former in the British Museum, the latter in Paris [PLATE XIII, 5, 6]. Clearly then the series with Eagle and Heracles, which Wruck (p. 160) attributed to Tyre, belong with the third series whose seated Tyche is par excellence the sign of Antioch.

Two of his tetradrachms, specimens of Wruck Nos. 139 and 140, and a tridrachm, Wruck No. 148 [PLATE XIII, 7, 8, 9] Newell had marked as from Caesarea in Cappadocia, though he noted the Wruck numbers on his tickets. It may be assumed that he would also have assigned Wruck Nos. 141, 142 and 146, tetradrachms of 98-99 and 100 [PLATE XIV, 1, 2, 3, London] and Wruck No. 144, a tridrachm of 98-99 [PLATE XIII, 10, American University at Beirut] which he did not possess. These portraits of Trajan show much variation, but they are all equally unlike the portraits on later coins of Antioch, which I take to have been his reason for assignment. With Wruck No. 142, because of the extreme similarity of the heads of Heracles on the reverses, must go Wruck No. 143, with the portrait to the left [PLATE XIV, 4] which Newell left to Antioch.

I do not find the argument from style conclusive. There are common features to these coins, to be sure: the proportions of the head and neck, the tight-lipped mouth, generally turned down at the corners. The difference from the later Antiochene portraits may be seen from the illustrations. But this is proof not of a different place of striking but of the fact that the official portrait which the die-sinkers copied was changed during the course of the reign. I have published examples of

the first adaptation of the portrait of Nerva to the service of the new emperor at Antioch (*Yale Classical Studies* XII, p. 263). Wruck (pp. 157f.) has commented on this phenomenon and pointed out the relation of the portrait to that on the Roman issues, which has been thoroughly discussed by Strack (*Untersuchungen zur römischen Reichsprägung des zweiten Jahrhunderts* I, pp. 18–42 “Datierung und Stil”). Comparison of two tridrachms certainly from Caesarea, of the second and the fifth consulships (Sydenham, *Coinage of Caesarea in Cappadocia*, Nos. 173, 182) [PLATE XIV, 5, 6] with two denarii of the same dates (*BMC Empire*, III p. 36 No. 36, p. 83, No. 383) [PLATE XIV, 7, 8] will show the general parallelism to be expected throughout the empire.

Against the attribution of the tetradrachms to Caesarea is, in the first place, the head of Heracles. This, to be sure, is a Tyrian rather than an Antiochene type, but it is certainly appropriate for a coinage designed to serve the Syrian district altogether, while its only connection with Caesarea is its appearance on bronze of that town when it was known as Eusebeia in the time of Archelaus, 36 B.C.–17 A.D. (*BMC Galatia etc.* p. 45, Nos 3f.).

The argument that tetradrachms are not proper to Caesarea is a weak one on two grounds: first, the assignment to that mint of tetradrachms of Nero and Divus Claudius (Sydenham pp. 36f., Nos. 64f.) is now generally accepted, so that Trajan would have had precedent; and second, a compensating embarrassment is presented by the tridrachms [PLATE XIII, 9, 10] and the didrachm, Wruck No. 145 (Sydenham p. 62, No. 181) [PLATE XIV, 9] which Newell put among his Caesarea coins without reference to Wruck but which can hardly be separated from the tetradrachms. If it is insisted that tetradrachms belong in Antioch, it might be replied that the lesser denominations should belong in Caesarea.

A more important argument is this: if the whole group is removed to Caesarea, there will be no tetradrachms of Trajan from Antioch until the fifth consulship, *except* those pieces of 98 which we know must have come from there since they use Nerva's Antiochene reverse (Wruck, No. 138). It is, of course, possible that those first experiments were followed by a closing of the mint until 103, since the chief need for money was in Asia Minor. Caesarea was certainly active during Trajan's first years. In 98-99 there were one type of tridrachm, eight of didrachms and three drachms issued; in 100 one tridrachm, one didrachm, one drachm and one hemi-drachm. Does this make it more likely, or less that the coins under consideration were added to that total, leaving Antioch without coinage? The matter is not capable of proof at the moment, but it seems to me that Wruck should be supported and his Nos. 139-148 attributed to the mint of Antioch.

It should be remarked that the locating of the exact place of striking has a specious importance which threatens to obscure the much more significant question of the district of striking. Whether the actual coining was done in Antioch or Tyre, it is obvious that certain pieces were designed to circulate all over Syria, as Wruck saw. Certain others were designed primarily for use in Asia Minor. That they also did come into Syria we know (*Dura Final Report* VI, p. 204). Nevertheless, Asia Minor was one fiscal district and Syria was another, and therefore the problem of location as between Caesarea and Antioch is of greater importance than that of location as between Antioch and Tyre.

### *The Gold and Denarii of Q. Labienus*

The well known aureus and denarius bearing the head of Quintus Labienus, with the inscription Q. LABIENVS PARTHICVS IMP. and the reverse type of a war horse, are listed by

Grueber as "probably struck at Antioch in Syria after he had assumed the titles of *Parthicus* and *Imperator*," (*BMC Republic*, Vol. II, p. 500). This attribution has been generally accepted. It is fundamental to Laffranchi's placing of other Roman coins at the same mint (*RIN* 1917, pp. 247-258). Hill had been more reserved, saying "the coin of Labienus must have been issued by him either in Syria (at some such place as Antioch) or in Asia Minor. A Syrian mint is, on the whole, more probable," (*Historical Roman Coins*, p. 130). Nevertheless, I do not believe that Antioch is the mint.

The history of Labienus' expedition is given by Cassius Dio (XLVIII, 24, 4-26, 5; 39, 3-40, 6) and may be summarized as follows. Labienus, son of Caesar's lieutenant and opponent, T. Labienus, was an ally of Brutus and Cassius. Before the battle of Philippi he was sent to Orodes for reinforcements; after the battle he persuaded Orodes to invade Syria while Antony was in Egypt and the Roman forces disorganized. In 40 B.C. with a large force commanded by Pacorus, Orodes' son, he entered Phoenicia and attacked Apamea. He beat the Roman forces under Saxa, winning over the garrisons of the town, which consisted largely of veterans of Brutus and Cassius. Saxa fled to Antioch and Labienus captured Apamea (Ἐλαβε). Saxa then fled to Cilicia and Labienus won over Antioch (παρεστήσατο), pursuing Saxa and killing him. Pacorus then conquered all of Syria except Tyre, invaded Palestine and deposed Hyrcanus, while Labienus was conquering Cilicia all except Stratonicea. Thereupon he collected money, robbed the temples and took the titles *Imperator* and *Parthicus*. Antony at the time did nothing, but in 39, while he was in Athens on his way home from Italy, he sent P. Ventidius to Asia who surprised Labienus without his Parthians and with only the local forces, drove him back into Syria and beat his Parthian reinforcements near the Taurus.

5•

Labienus dared not give battle, tried to escape and was captured.

It is evident that the titles *Imperator* and *Parthicus*, which appear on the coins, were assumed in Asia Minor, and there is no reason to suppose that Labienus was at Antioch at all. Whatever Dio means by *παρεστήσατο*, the transaction took place while he was pursuing Saxa into Cilicia and need not have required his presence, and apparently he stayed in Cilicia until Ventidius drove him out. Antioch, therefore, was not his capital; it was Pacorus who subdued Syria after the flight of Saxa, but the operations of Pacorus were to the south. Of course, Antioch could have struck coins for military purposes without the commander's residing there, but we are impelled to ask, for whom were these coins struck? Not for the Parthians, for they undoubtedly used the abundant issues of Orodes, and if it had been necessary to provide them with special money, it would have been Parthian money. If for the Roman forces in Syria, why not in the south where the army was operating and why not in the name of Pacorus since the territory was in his control? But were there any Roman forces left in Syria? Most, if not all of them, must have accompanied Labienus in the pursuit of Saxa and the conquest of Cilicia, for there was no Roman contingent in the original army of invasion, and when Ventidius came upon him he had soldiers but no Parthians. It was for the Roman army in Cilicia that Labienus had to provide and since they were in Asia Minor, where Roman gold and denarii had been used since the time of Sulla (Grueber, *BMC Republic*, Vol. II, pp. 445-458) that currency would be the obvious one to use. The simplest understanding of Dio's account is that Labienus collected treasure in Cilicia and used it there to strike coins for his troops, using his new titles.

This conclusion is supplemented by what we know about

the activity of Antioch. When Newell wrote his article on the Pre-imperial coinage of Antioch he knew of no silver of 41-40 or 40-39 B.C. and he explained peculiarities of the bronze of the former year (Θ and BOC) as an effect of the Parthian occupation. But since that time tetradrachms for both years have been found (Newell, *The Fifth Dura Hoard*, NNM No. 58, 1933, p. 3 nos. 3 f.; *N.C.* 1927, p. 203, no. 56) which are exactly like the ones of the previous year. Whatever be the reason for the sudden reversion to Seleucid dating in 41-40, therefore (Newell, *op.cit.*, pp. 95-99) it is apparent that the mint of Antioch followed its usual course with only minor deviations, and did not as yet embark on the striking of aurei and denarii.

ALFRED R. BELLINGER





## AN EARLY FOURTH CENTURY HOARD FROM EGYPT

This collection of bronze coins came to America in the spring of 1931, when it was offered for sale in New York by the well-known Syrian dealer, Azeez Khayat. It was described by Khayat as "found in Luxor," but this can mean little more than that it probably came from Egypt,\* a conclusion made reasonable by internal evidence. It was not complete, as "some coins" had been sold before the hoard left for this country and E. T. Newell, to whom the collection was first offered, purchased a select group. The rest, apparently without further diminution, were auctioned off by Thomas Elder as the "Luxor Hoard" in the course of four sales held in 1931 (July 1, Nov. 20, Dec. 18) and were purchased for the Washington Square College of New York University. In the course of these sales a few lots unfortunately were obtained by other bidders and the auctioneer refused to give information which might lead to the recovery of these lots. Consequently, there are at least 112 coins which are left without record unless the purchasers at the above sales are able to identify the missing lots.

Nov. 20, 1931, catalog pp. 6-8:

Lot 20 (10 coins), 21 (8), 22 (7), 63 (3). Total 28 coins.

\* "My recollection is that he *said* they came from Egypt, and they look like an Egyptian find. But he often buys his coins in Syria where he lives . . . . He buys most of his things in Cairo, a few in Alexandria, once in a while he travels up to Luxor. In any case, he buys only from dealers and agents, not from the peasants and finders directly. This does not apply, however, to things he buys in Palestine and Syria. There he frequently does buy directly from the finders, as he is at home there and travels up and down the country." E. T. Newell, letter, Aug. 4, 1933.

Nov. 21, 1931, catalog p. 50:

Lot 946 (8), 947 (8), 948 (15), 950 (10). Total 41 coins.

Dec. 18, 1931, catalog pp. 19-20:

Lot 295 (6), 297 (5), 298 (7), 300 (5), 302 (5), 305 (1), 306 (8), 308 (6). Total 43 coins.

In 1936 a single coin, which certainly belongs to the hoard, was acquired from the dealer and added to the collection, but no more have been traced. The hoard as studied here is therefore incomplete, but we do not believe that our conclusions are much affected by that fact. There is, on the contrary, every reason to suppose that all the missing coins, if found, would fit without difficulty into the list presented here.

The evidence for this conclusion is presented rather more fully than necessary both as an example of the way in which hoards may be distorted in the hands of dealers and as another instance of the sagacious critical method of E. T. Newell. We, like so many others, were so much indebted to Newell for his kindly, patient helpfulness that we are glad to pay this tribute to his memory. He pointed out to us, in a letter dated July 19, 1940, explained how he was able to detect intruded coins in the hoard as it came to us: "I *know* there were no coins of Constantius II and Constantius Gallus in the hoard! When I saw them in Khayat's possession they formed a compact little hoard running, in the main, from the last years of Maximinus Daza to about the time of the Licinius-Constantine war. I do not remember either the Severina — which I should certainly have "copped" if I had seen it! My invariable practice when picking from a hoard (i.e. not purchasing the lot *in toto*) is to make a selection of (a) the coins I lack, (b) all the earliest coins in the hoard (c) all the latest coins in the hoard. The earliest coin I saw was the single piece of Herculeus. The latest coins I saw were the joint issues of Licinius and Constantine for Alexandria."

We have judged it best to list *all* the coins and in the light of the above data to indicate (†) those which in Newell's opinion were inserted into the hoard. Of these, the piece of Severina, the four of Constantine from Treves, and the last eight coins of the list are so obviously aberrant in date, type or patina that there can be no question at all. The argument for the omission of the three pieces of Constantine from Aretale is not so clear. Two of these have the soft green patina that is almost a hallmark of the group and the third has been cleaned. Date and mint are concordant and the only differentiating feature is the appearance of C/S. Newell was sure that he would have chosen these coins had he been offered them and wrote consequently that they were "almost certainly not in the hoard." Despite our own uncertainty we have followed his judgement and marked them with daggers.

Omitting these 16 coins, therefore, the authentic hoard now consists of 506 coins. Roughly a hundred of the 112 coins sold by Elder may be assumed also to belong to it. The hoard when it was brought to this country by Khayat, therefore, consisted of slightly more than 600 pieces. In the discussion which follows, we have dealt of course only with the 506 about which there can be no doubt. In the statistics the ancient forgery is also omitted.

Uniformity in type (laureate head obverse), size, and weight makes it clear that the hoard consisted for the most part of *folles*. This is the coin which in Diocletian's system of 295 A.D. supplanted the *antoninianus*, but which after rapid depreciation (the first "reduction" taking place in 307, the second in 311) was in its turn (314) supplanted as the principal bronze coin by the *nummus centenionalis* of Constantine. Two other changes in the monetary system of this period are important in connection with the hoard: the shift (on which the hoard throws light) from *denarius* to *nummus* as the basic unit some

time after 301; and the substitution by Constantine of the *solidus* (1/72 of the gold pound) for the *aureus* (1/60 of the pound).<sup>1</sup>

The distribution of the hoard by periods and by mints is apparent in the following table.

MINTS	DATES										TOT.
	293	305/6 306/8	307	310 310/11 307/11 308/9 308/10 308/11	309/13	311/12	311/13	312 312/13	313 313/14	313/15 312/17 313/17 314/17 315/17	
Alexandria			9	6		4		57	79	30	246
Antioch				10			33		14		57
Aquileia				1				1			2
Arelate									21		21
Carthage		1									1
Cyzicus	1			2		3		3	7	1	17
Heraclea								1			1
Lugdunum								1	2		3
Nicomedia				4		1		5	6		16
Ostia								4			4
Rome		2						6		6	128
Siscia						1		1		114	2
Ticinum					5						6
Treveri										1	1
	1	3	9	23	5	9	33	79	129	36	505

The table bears out Newell's description "a compact little hoard." The bulk of the coins were minted in 312-317. Only four pre-date the "first reduction of the follis in 307 and all but forty-one (perhaps fewer) postdate the second reduction in 311. The date of burial seems clearly indicated as later than 317 and earlier than 320. This is somewhat later than Newell's estimate. In a pencilled note on a draft of this manuscript he

<sup>1</sup> See in general Harold Mattingly, *Roman Coins*, New York 1928, pp. 223-228; Jules Maurice, *Numismatique constantinienne*, Paris 1908, I pp. xxxviii, xli-xliii, lxxix; Gunnar Mickwitz, *Geld und Wirtschaft im römischen Reich des vierten Jahrhunderts*, Helsingfors 1932, p. 85.

remarked: "This was when the hoard was buried if we follow Maurice. Personally I think the hoard was buried circa 314/5 during the war between Licinius and Constantine. It is well known that Maurice's dates are frequently wrong." There is no point in speculating about the hoarder's motive, as in Egypt the urge to bury his savings has always been inordinately strong<sup>2</sup> and even if the date is 314/5 there is no reason for connecting it with war or political disturbance.

The coins have been struck from cast flans which are far more frequently elliptical than round. No attention was paid to the relative positions of obverse and reverse dies. Deep fissures point to uneven hammer blows. On the whole there is evidence of haste and carelessness in minting — perhaps an indication of the comparatively small value of the coin.

A green patina is present on practically all the specimens. One group from Alexandria, however, is almost mint-new and seems to have come into the possession of the owner shortly after coinage and distribution. On many of the coins occurs the characteristic silvery sheen which Lewis<sup>3</sup> has demonstrated to be due to impurities in the metal. Since the publication of Lewis' convincing argument against the "silver-washed" follis it has been easy to explain away coins with some surface appearance of silver and to deny the practice of washing altogether. There are several coins in this hoard in which the trace remaining is provocative and one in which it is unmistakable.

<sup>2</sup> J. G. Milne has stated this fact definitively in his discussion of the Fayoum hoard in the *Journal International d'Archeologie Numismatique* 6 (1914) 1-27. He points out (26): "Probably the money in circulation in Egypt was constantly being depleted by the burial of large hoards: to this day the Egyptian prefers to bury his money... the number and size of the deposits of Graeco-Roman times which have been discovered in recent years are enormous: on the information which has reached me it would seem within the mark to say that during the last quarter of a century not less than three million ancient coins and possibly very many more, have come to light."

<sup>3</sup> N. Lewis, *A Hoard of Folles from Seltz (Alsace) with a Supplement on the Chemical Composition of the Folles by David Lewis* (1937), pp. 76-81. Mickwitz (83-84) considered the presence of silver significant in relation to the value of the coin.

On the latter the wash is spread over the whole coin, appearing in some places dull gold and in one spot on the reverse a lustrous green, quite different from the light powdery green exhibited so commonly elsewhere in this hoard. Pending chemical analysis it is unwise to lay much stress on this coin but several facts may be kept in mind. Lewis' hoard from Seltz had an overwhelmingly Western provenience, contained no Alexandrian issues and was limited to the dates 295-307. West and Johnson, reserving judgement about coins smaller than the follis, report (p. 98) that "coins struck by Licinius and marked  $\frac{\cup | A}{SMAL}$  (17-20 mm; dated A.D. 317/18) sometimes occur with a definite silver wash." No. 401 is a Licinius

coin minted in Alexandria. The mint mark is  $\frac{K | \begin{smallmatrix} Q \\ X \\ A \end{smallmatrix}}{ALE}$  and the

date is 314-317 but size (20 mm.) and weight (3.4 gm.) are so exactly in accord with the statistics cited (p. 97) that there can be no doubt that this coin is of the type described by them and not analyzed by Lewis. It is also worthy of note that the three other coins on which the wash is apparent belong to this series. All are Alexandrian issues of Licinius, all are dated 314-317, and all have the IOVI CONSERVATORI reverse. The sizes are respectively 20, 19.13, 21 mm. and the weights 3.99, 4.13 and 3.69 gm.

Diameter and weight of the coins vary as follows:

1st reduction	22-26 mm.	4.43-7.5 gm.
2nd     ,,	19.5-22 mm.	3.13-6.7   ,,
3rd     ,,	18-22.5   ,,	2.14-5.8   ,,

With these figures may be compared the statistics collected by West and Johnson *Currency in Roman and Byzantine Egypt* (1944) p. 97 of changes in the bronze coins issued at Alexandria:

308-311	23-25 mm.	6.64 gm. (average)
312-313	19-21 „	4.92 „ „
314-317	17-20 „	3.45 gm. „

There are also substantially the same as those in Maurice I xl:

307	25-26 mm.	7.50-8 gm.
311	20-21 „	4-5 „

But the three sets of figures point out how inexact any tabulation based on these coins must necessarily be.

The types are normal and individually have no special interest. One only calls for comment. Originally issued in the name of Galerius it was overstruck with an obverse attribute able to Licinius and an IOVI CONSERVATORI AVGG

reverse whose field 

X
B

 assigns it to Alexandria. Newell

suggested that it was an ancient forgery and in view of the barbaric style of its obverse and the crudity of its lettering we are content to adopt his view. Fourth century cast forgeries are rather common in Egypt but an overstrike of this sort may indicate either that the previous coin had been demonetized or that the new coin was worth appreciably more than the original.

The distribution by rulers is as follows:

Diocletian .....	1
Maximian .....	1
Galerius .....	6
Valeria .....	1
Maximinus II .....	89
Constantine I .....	194
Maxentius .....	2
Licinius I.....	211 (one overstruck)

Study of the hoard from the viewpoint of imperial iconography substantiates Maurice's conclusions (I pp. 4-13) that the head on a coin is not necessarily that of the emperor to

whom the coin is ascribed, that portraits of the reigning emperors are faithful when minted within their own realms, and that emperors in whose name money was issued were often represented by the head of the recently deceased emperor, or by a stylized portrait of the sovereign emperor (since an exchange of statues was not always immediately made). One exception may be pointed out: in May 313 Maximinus II lost Egypt to Licinius, and in the autumn of the same year was dead, but even as late as 317 the mint at Alexandria had not changed, save for a reduction in the size of face and neck, the representation of Maximinus to that of Licinius.

Identification of the portraits in this hoard is quite easy, not only because of variations in the imperial nomenclature but also because of the tendency to develop regional types. The portraits of the Illyrian emperors display similar facial characteristics: features are regular though not handsome, head and forehead come together at a sharp angle, a small nose joins the forehead at another angle, brows are heavy and necks thick.

The great bulk of the coins are issues of Maximinus, Constantine and Licinius, and fall, roughly, into four categories. The GENIVS coins are with two exceptions from eastern mints, where emperor worship was particularly stressed.<sup>5</sup> Maximinus used the imperial cult as a foil to Christianity, and it is perhaps natural that most (70 out of 110) of these coins, with their unmistakable pagan connotations, are ascribed to him. The IOVI CONSERVATORI type, exclusively (with but one exception) eastern, is most characteristic of Licinius (147 out of 211) whose adoption into the Jovian dynasty it advertises. Our hoard gives evidence of the importance placed on the slogan by Licinius, for every one of his coins issued from Alexandria

<sup>5</sup> *Cambridge Ancient History* XII, pp. 349, 351, 418, 680; for the association with Mithra see Cumont, *Les Religions orientales dans le Paganisme romain*, 139.



after his conquest of Egypt is of this type. Two thirds of the SOLI INVICTO coins (116 out of 165) belong to Constantine, whose patron deity Apollo was taken over, together with his assumed descent, from Claudius Gothicus. With eight exceptions they come from Constantine's territory, the west. The EXERCITVS coinage is, naturally enough in a state dominated by the army, used for propaganda purposes by all the emperors alike. It is particularly common in the realm of Maximinus.

Of the four chief types, therefore, three are particularly associated with different emperors, but each of these was also perforce issued by the emperor in the name of his co-emperors. The fact that our hoard is incomplete precludes all generalization from the ratio of coins issued by an emperor in his realm to his co-emperors. The following table summarizes the distribution, by types and mints, of the coins of Maximinus, Constantine and Licinius (abbreviated respectively, M, C and L):

		ALE	ANT	NIC	CYZ	HER	SIS	AQV	ROM	OST	KART	ARE	LVG	TRE	TIC	TOTAL
BONO GENIO PII IMPERATORIS	M	3														3
	C															
	L	1														1
CONSERVATORES KART SVAE	M															
	C										1					1
	L															
GENIO AVGVSTI	M	34	15	3	3			1								56
	C	16														16
	L	3	7	1	3											14
GENIO CAESARIS	M	3														3
	C															
	L															
GENIO EXERCITVS	M		5													5
	C		1													1
	L															
GENIO IMPERATORIS	M	3														3
	C															
	L	3														3

		ALE	ANT	NIC	CYZ	HER	SIS	AQV	ROM	OST	KAST	ARE	LVG	TRE	TIC	TOTAL
GENIO POP ROM	M C L										I					I
GENIO POPVLI ROMANI	M C L	3 1														3 1
IOVI CONSERVATORI	M C L		2 5 4	3 3 3												5 13 15
IOVI CONSERVATORI AVGG	M C L	41 20	5 6			I		I								46 128
IOVI CONSERVATORI AVGG NN	M C L		3				I									4
MARTI CONSERVATORI	M C L														2	2
SOLE INVICTO	M C L		I		I											I I
SOLI INVICTO	M C L		3 1 1	I												4 1 1
SOLI INVICTO COMITI	M C L								84 39	I I I	I I	23 1	3	I	3 1	2 115 41
S.P.Q.R. OPTIMO PRINCIPI	M C L								I I I	I I I						2 1 2
VIRTVS EXER- CITVS	M C L	2	2													4
VIRTVTI EXERCITVS	M C L		3 1	I												4 1
TOTALS	M C L	42 66 131	31 7 18	8 3 4	3 3 8	I	2	I 1 40	I 85 40	I 1 2	I I 1	23 1	3	I	5 1	88 198 209
		ALE	ANT	NIC	CYZ	HER	SIS	AQV	ROM	OST	KART	ARE	LVG	TRE	TIC	TOTAL

In addition to mint marks and marks of value (see below) the coins display insignia which not infrequently served as symbols to recall or emphasize some aspect of imperial policy or of the emperor's reign. These are the palm branch, wreath, star, crescent, and altar.

The *palm branch* (in every instance but one accompanied by a star) is significantly confined to Alexandria in 312–313, when it appears on the GENIO AVGVSTI issues of Maximinus, Constantine and Licinius. Ten specimens (only one ascribed to Maximinus) have wreath added to star — these also are GENIO AVGVSTI and GENIO POPVLI ROMANI issues. The exclusive association of the palm branch with the Genius type and with the Egyptian mint point to some connection with the policy of Maximinus — perhaps an anticipation of his decennalia.<sup>6</sup>

The *wreath*, in addition to its association with the palm branch and star noted above, appears in 313–314 at Alexandria and Antioch in the IOVI CONSERVATORI issues of Constantine and Licinius and in 314–317 at Alexandria with the same types. The association of the corona with the IOVI CONSERVATORI type (all except the series with palm branch and star) would connect these coins closely with Licinius. However, since in a few instances it does appear with the palm branch, both symbols cannot mark the completion of five (or ten) years unless they refer to different emperors. Licinius in 313 was celebrating his quinquennalia (votis V on gold: Maurice III 183) the corona may refer to that event while the palm branch continues to anticipate the decennalia of Maximinus.<sup>7</sup> After the death of the latter, Licinius' issues,

<sup>6</sup> Maurice, III 181. Vows were sometimes celebrated in advance and may appear on the coins of the junior emperors although applying strictly to the senior alone (Mattingly 244).

<sup>7</sup> The Alexandria mint, as noted above, continued to use with slight modifications the head of Maximinus for that of Licinius. Is it possible that the palm-branch-corona series

with the exception of the palm-star-corona series, were restricted to the wreath alone.

The *star* as a symbol of divinity is closely related to emperor worship and is found in both east and west. It is associated in the west with Constantine's SOLI INVICTO type, since the coins on which it appears come from mints within his realm (in this hoard, Rome, Arelate, and Ticinum).

The exact significance of the *crescent* is as yet undetermined — it may be an obscure reference to Isis or Mithra and the eastern cults. With but three exceptions the coins of this group come from Antioch (310–311, Maximinus and Constantine) and bear, in addition to the crescent, an altar and GENIO EXERCITVS. The prevalence of eastern cults in the army makes this a natural connection. Even the three exceptions are closely related issues; Alexandria 311–313 GENIO AVGVSTI (Maximinus, Licinius).

The *altar* designates (Maurice III 223) a provincial centre of the imperial cult — in this hoard, Cyzicus and Aquileia (both represented by GENIO AVGVSTI coins of Maximinus 312–313) as well as Antioch (mentioned above). Its appearance is a reminder of Maximinus' attempt to set up a syncretism with emperor worship at its head.

In addition to the foregoing symbols it is quite possible that slogans are to be discerned in some of the letters current in Western mints: R|F and S|F at Rome, T|F at Arelate, F|T and S|F at Lugdunum, and T|F at Treveri. These abbreviations were resolved by Laffranchi<sup>8</sup> as ROMA FELIX, SAECULI FELICITAS and TEMPORUM FELICITAS, an interpreta-

represents a parallel situation — namely, that the old Maximinus die with palm branch was used by Licinius who only added his corona? It will be noted that the preceding series (Maximinus) has the palm branch alone, the succeeding series (Licinius) only the corona.

<sup>8</sup> L. Laffranchi, *Concordia zwischen staatlichen Münzateliers des IV. Jb. n. Cb.* in *NZ* 1925, 85 note 1.

tion preferable to that of Maurice (I 374) who saw in them references to the Flavian dynasty.

We do not venture at all into the vexing problem of the marks which have been taken as designations of value or monetary units. They are of the usual type. In Alexandria for example some of the issues of 307-312 contain  $\overline{K|P}$ ,  $\overline{K|X}$ ,  $\overline{X|}$ ,  $\overline{K|}$ ; those of 312-314  $\overline{|N}$  and  $\overline{N|}$  while on issues of 314-317 are found  $\overline{K| \begin{smallmatrix} X \\ A \end{smallmatrix}}$  and its variants; on certain issues of Cyzicus and Nicomedia occurs the ligature  $\overline{\text{MH}}$ . The hoard offers no new evidence and we are convinced by the argument of West and Johnson<sup>9</sup> that whatever their meaning it cannot be unit or value.

Although this modest hoard offers no great addition to our knowledge of fourth century coinage, it confirms some of the political and economic conclusions which have already been drawn. Thus the relatively large number of coins from the years 312-317 seems to point to great activity of mints to meet the costs of the succession of wars carried on throughout the empire (Constantine and Maxentius, Licinius and Maximinus, Constantine and Licinius). The paucity of western coins prior to 313 may well be due to the fact noted by Eusebius (viii. 15) that Maximinus put up trade barriers against western merchants in his realms by confiscating their goods and making them liable to treatment as spies. The provenience from western as well as eastern mints of the large number of coins dated 313-317 is indirect evidence for the reopening of Egypt to the western world by the reforms of Diocletian, and reinforces the view<sup>10</sup> that this reopening, as well as the standardization of the imperial coinage, brought about in Egypt a period of comparative prosperity. It may

<sup>9</sup> *Currency in Roman and Byzantine Egypt*, Princeton 1944, pp. 98-102.

<sup>10</sup> Milne, "The Ruin of Egypt by Mismanagement," *Journal of Roman Studies* 17 (1927) 9; Mickwitz 110.

even be that the large proportion of coins from mints outside of Alexandria is evidence for the traffic in money (either importation of, or speculation in, copper coins) for which other evidence is available.<sup>11</sup>

But perhaps the most striking feature of this hoard is the evidence afforded by the distribution by mints. Thirty years after the reform of Diocletian, half of the coins still came from the mint at Alexandria and half of the rest from Rome (these last apparently in one shipment). The picture here presented may be compared with that presented by Milne's *A Hoard of Constantinian Coins from Egypt*.<sup>12</sup> The date of that large hoard (bought in the Fayoum) is 343-345; the proportion of Alexandrian is almost identical with those from Antioch (26%) while 34% come from the area about Constantinople. Milne's explanation of coin-drift as flowing through the normal channels of the great ports is very reasonable and applies as well to the "Luxor" as to the Fayoum hoard. The difference is only the fact that the "Luxor" importations into Egypt were funnelled largely from the Western mints through Rome while those of the Fayoum came from the East through Antioch. A comparison of the statistics from six<sup>13</sup> Egyptian hoards of the fourth century is instructive:

<i>Date</i>	<i>Place</i>	<i>Alexandrian mint</i>
310	Denderah	70%
317-320	"Luxor"	50%
326	Antinoe	47%
345	Fayoum	26%
360	"	44%
400	"	35%

On the whole this presents another indication of the conser-

<sup>11</sup> Milne, *Coins from Oxyrhynchus* 162; Mickwitz 108-109.

<sup>12</sup> Note 2 above.

<sup>13</sup> Five of these from Milne *Coins from Oxyrhynchus* 61.

vatism of the Egyptians. Shortly after the opening of Egypt to imperial coinage an Egyptian hoarded 70% local coins, a proportion which steadily decreased to 26% a generation later and which then levelled off at a slightly higher figure. Into these statistics the "Luxor" hoard fits perfectly.

In the following list the coins are arranged according to emperor and mints. The following abbreviations and symbols have been used:

- C = Henry Cohen, *Description historique des monnaies frappées sous l'Empire romaine* 2nd edition, VI (1886), VII (1888), VIII (1892). The volumes are cited in the text by Arabic rather than Roman numerals.
- M = Jules Maurice, *Numismatique constantinienne*. Paris, 1908-1912, Vols. I-III.
- MS = Mattingly and Sydenham, *The Roman Imperial Coinage*, V<sup>2</sup> (by Percy Webb), 1923-38.
- NZ = Otto Voetter, articles in *Numismatische Zeitschrift*, 1901, 1911, 1917, 1918, 1920, 1923, 1925, 1926.
- † = coin from the collection of Edward T. Newell, and now in the American Numismatic Society. All other coins are in the possession of the Washington Square College of New York University.
- † = coin purchased as part of the hoard but rejected for reasons stated in the text.

Our indebtedness to Mr. Newell will be apparent to readers of this monograph and we owe it to him to state that he did not see the final draft of the manuscript and cannot be held responsible for errors which it may well contain. We wish also to extend to Mr. Sydney P. Noe our thanks for the encouragement and assistance rendered us at the American Numismatic Society.

## LIST OF COINS IN HOARD

SEVERINA. *Cyzicus*. C 6, MS 249  $\left( \frac{\overline{\text{I}}}{\text{XXI}} \uparrow \right)$

MAXIMIANUS HERCULIUS. *Cyzicus*. C 499, MS 291  $\left( \frac{\text{E}}{\text{XXI}} \uparrow \right)$

DIOCLETIAN. *Antioch*. C 421, NZ. 1917. 19  $\left( \frac{\text{Δ}}{\text{ANT}} \uparrow \right)$

GALERIUS. *Alexandria*. C 22, NZ. 1911. 174  $\left( \frac{\text{B}}{\text{ALE}} \right)$ ; C 47,

NZ. 1911. 178  $\left( \frac{\text{K} \left| \begin{smallmatrix} \Gamma \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}}, \frac{\text{K} \left| \begin{smallmatrix} \Delta \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}} \right)$

*Nicomedia*. C 42, M 10-12  $\left( \frac{\overline{\text{I}}}{\text{SMNA}} \right)$

*Cyzicus*. C 47, M 92-98  $\left( \frac{\text{S} \left| \begin{smallmatrix} \text{Δ} \\ \text{MKV} \end{smallmatrix} \right.}{\text{MKV}}, \frac{\text{Δ} \left| \begin{smallmatrix} * \\ \text{MKV} \end{smallmatrix} \right.}{\text{MKV}} \right)$

VALERIA. *Alexandria*. C 9, NZ. 1911. 180  $\left( \frac{\text{J} \left| \begin{smallmatrix} \text{F} \\ \text{K} \left| \begin{smallmatrix} \text{P} \\ \text{ALE} \end{smallmatrix} \end{smallmatrix} \right. \right.}{\text{ALE}} \uparrow \right)$

MAXIMINUS II. *Alexandria*. C 40, NZ. 1911. 177-8

$\left( \frac{\text{K} \left| \begin{smallmatrix} \text{A} \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}}, \frac{\text{X} \left| \begin{smallmatrix} \Gamma \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}}, \frac{\text{K} \left| \begin{smallmatrix} \text{S} \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}} \right)$ ; C 49  $\left( \frac{\text{K} \left| \begin{smallmatrix} \Gamma \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}} \right)$ ;

C 202  $\left( \frac{\text{K} \left| \begin{smallmatrix} \text{B} \\ \text{P} \end{smallmatrix} \right. \uparrow}{\text{ALE}}, \frac{\text{K} \left| \begin{smallmatrix} \text{E} \\ \text{P} \end{smallmatrix} \right. \uparrow}{\text{ALE}} \right)$ ; C 52  $\left( \frac{\text{K} \left| \begin{smallmatrix} \Gamma \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}}, \frac{\text{K} \left| \begin{smallmatrix} \text{S} \\ \text{P} \end{smallmatrix} \right.}{\text{ALE}} \right)$ ;

C 2  $\left( \frac{\text{J} \left| \begin{smallmatrix} \Gamma \\ \text{K} \left| \begin{smallmatrix} \text{P} \\ \text{ALE} \end{smallmatrix} \end{smallmatrix} \right. \right. \uparrow^{(1)}}{\text{ALE}} \right)$ ; C 17, NZ. 1911. 180-1  $\left( 3 \frac{\text{X} \left| \begin{smallmatrix} \text{A} \\ \text{ALE} \end{smallmatrix} \right. \uparrow^{(1)}}{\text{ALE}}, \frac{\text{X} \left| \begin{smallmatrix} \text{B} \\ \text{ALE} \end{smallmatrix} \right.}{\text{ALE}} \right)$



$$\begin{array}{c}
\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{B} \end{array} \quad \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \Gamma \end{array} \quad \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \Delta \end{array} \quad \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{E} \end{array} \quad \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{S} \end{array} \quad \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{Z} \end{array} \\
\begin{array}{c} \text{3} \end{array} \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{B} \end{array}}{\text{ALE}}, \begin{array}{c} \text{4} \end{array} \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \Gamma \end{array}}{\text{ALE}}, \begin{array}{c} \text{5} \end{array} \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \Delta \end{array}}{\text{ALE}}, \begin{array}{c} \text{7} \end{array} \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{E} \end{array}}{\text{ALE}}, \begin{array}{c} \text{3} \end{array} \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{S} \end{array}}{\text{ALE}}, \begin{array}{c} \text{6} \end{array} \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{Z} \end{array}}{\text{ALE}}, \\
\left( \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{H} \end{array} \quad \begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{Z} \end{array} \right) \\
\frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{H} \end{array}}{\text{ALE}}, \frac{\begin{array}{c} * \\ \text{N} \end{array} \begin{array}{c} | \\ \text{Z} \end{array}}{\text{ALE}}
\end{array}$$

*Antioch.* C 202, NZ. 1917. 18–19  $\left( \frac{\Delta | \cup}{\text{ANT}}, \frac{| \text{O}}{\Delta} \right)$ ; C 157,

NZ. 1917. 19  $\left( \frac{\text{A} |}{\text{ANT}} \right)$ ; C 47, NZ. 1917. 7  $\left( \frac{\cup | \Delta}{\text{ANT}}, \frac{\cup | \text{Z}}{\text{ANT}} \right)$ ,

$\frac{\cup | \text{S}}{\text{ANT}}, \frac{\cup | \text{H}}{\text{ANT}}, \frac{\cup | \text{E}}{\Delta} \right)$ ; C 21, NZ. 1917. 21. 8  $\left( 2 \frac{* | \text{B}}{\text{ANT}} \right)$ ,

$\frac{* | \Gamma}{\text{ANT}}, \frac{* | \Delta}{\text{ANT}}, 3 \frac{* | \text{E}}{\text{ANT}}, 2 \frac{* | \text{S}}{\text{ANT}}, 2 \frac{* | \text{E}}{\Delta}, 2 \frac{* | \text{I}}{\text{ANT}} \right)$ ,

$2 \frac{* | \text{BI}}{\text{ANT}} \right)$ ; C. 116, NZ. 1917. 21. 8  $\left( \frac{* | \text{B}}{\text{ANT}}, \frac{* | \text{E}}{\text{ANT}} \right)$ ; C 214,

NZ. 1917. 21. 8  $\left( \frac{* | \text{Z}}{\text{ANT}} \right)$ ; C 216  $\left( 2 \frac{* | \text{I}}{\text{ANT}} \right)$ ; C. 161, NZ,

1917. 21. 8  $\left( \frac{\text{A} | *}{\text{ANT}}, \frac{\text{E} | *}{\text{ANT}}, \frac{\Delta | *}{\text{ANT}} \right)$

*Nicomedia.* C 34, M. 3. 10–12  $\left( \frac{|}{\text{SMNA}}, \frac{|}{\text{SMNB}}, \frac{|}{\text{SMN}\Gamma} \right)$ ;

C 118 M. 3. 20–23  $\left( \frac{* | \text{A}}{\text{SMN}}, \frac{| \text{A}}{\text{SMN}}, \frac{* | \text{B}}{\text{SMN}} \right)$ ;

$$C_{161} \left( \begin{array}{c|c} * & \dagger \\ \hline \Gamma & \\ \hline \text{SMN} & \end{array} \right); C_{216} \left( \begin{array}{c|c} * & \dagger \\ \hline Z & \\ \hline \text{SMN} & \end{array} \right).$$

$$\text{Cyzicus. } C_{29}, M. 3. 105-7 \left( \begin{array}{c|c} | & \dagger \\ \hline \Delta & \\ \hline \text{SMK} & \end{array}, \begin{array}{c|c} | & \dagger \\ \hline S & \\ \hline \text{SMK} & \end{array} \right); C_{34} \\ \left( \begin{array}{c|c} | & \dagger \\ \hline S & \\ \hline \text{MKV} & \end{array} \right)$$

$$\text{Aquileia. } C_{30}, M. 308-309 \left( \begin{array}{c|c} | & \dagger \\ \hline & \\ \hline \text{AQS} & \end{array} \right)$$

$$\text{Rome. } C_{181}, \text{NZ. } 1925. 18 \left( \begin{array}{c|c} | & \dagger \\ \hline & \\ \hline \text{RP} & \end{array} \right)$$

$$\text{Ostia. } C_{167}, M. 1. 282-7 \left( \begin{array}{c|c} | & \\ \hline & \\ \hline \text{MOSTT} & \end{array} \right)$$

$$\text{MAXENTIUS. } \text{Rome. } C_{21}, \text{NZ. } 1925. 14-16 \left( \begin{array}{c|c} | & \dagger \\ \hline & \\ \hline \text{RES} & \end{array}, \begin{array}{c|c} & \dagger \\ \hline & \\ \hline \text{RET} & \end{array} \right)$$

CONSTANTINUS I. *Alexandria.* FL VALER CONSTANTINVS PF  
AVG; *Rev.* IOVI CON SERVATORI, Jupiter. Not in C. or  
M; type in NZ. 1911. 8 but field has  $\underline{N|S} \left( \begin{array}{c|c} | & \\ \hline S & \\ \hline \text{ALE} & \end{array} \right)$ ;

$$C_{172}, \text{NZ. } 1911. 180-1 \left( \begin{array}{c|c} * & \dagger^{(1)} \\ \hline N & A \\ \hline \text{ALE} & \end{array}, \begin{array}{c|c} * & \\ \hline N & H \\ \hline \text{ALE} & \end{array} \right);$$

$$C_{172}, \text{NZ. } 1911. 180-1 \left( \begin{array}{c|c} * & \\ \hline N & B \\ \hline \text{ALE} & \end{array}, \begin{array}{c|c} * & \dagger^{(1)} \\ \hline N & E \\ \hline \text{ALE} & \end{array} \right);$$

$$C\ 235, NZ. 1911. 180-1 \left( \begin{array}{c} *N|B \\ \text{☿} \end{array} \right. \left. \begin{array}{c} *N|E \\ \text{☿} \end{array} \right. \left. \begin{array}{c} *N|E \\ \text{☿} \end{array} \right) ;$$

$$C\ 236, NZ. 1911. 180-1 \left( \begin{array}{c} N|\Delta \\ \text{☿} \end{array} \right. \left. \begin{array}{c} N|S \\ \text{☿} \end{array} \right. \left. \begin{array}{c} N|Z \\ \text{☿} \end{array} \right) ;$$

FL VALER CONSTANTINVS PF AVG *Rev.* IOVI CONSERVATORI, Jupiter l. with scepter, etc., eagle Not in C. without corona.  $\left( \frac{N|E}{ALE}, 2 \frac{N|S}{ALE}, \frac{N|Z}{ALE} \right) ;$

$$C\ 297, NZ. 1911. 181 \left( \begin{array}{c} \text{☿} \\ A \\ N \end{array} \right. \left. \begin{array}{c} \text{☿} \\ B \\ N \end{array} \right. \left. \begin{array}{c} \text{☿} \\ \Gamma \\ N \end{array} \right) ,$$

$$3 \frac{\text{☿} \Delta N}{ALE}, 2 \frac{\text{☿} E N}{ALE}, \frac{\text{☿} S N}{ALE}, 3 \frac{\text{☿} Z N}{ALE}, 5 \frac{\text{☿} H N}{ALE} \Big) ; C\ 297,$$

$$M. 3. 260-264, \left( \begin{array}{c} \text{☿} \\ K|X \\ A \end{array} \right. \left. \begin{array}{c} \text{☿} \\ K|X \\ B \end{array} \right. \left. \begin{array}{c} \text{☿} \uparrow^{(1)} \\ K|A \\ X \end{array} \right) ,$$

$$2 \frac{\text{☿} A}{ALE}, 3 \frac{\text{☿} B}{ALE}, 6 \frac{\text{☿} X}{ALE},$$

$$5 \frac{K \text{☿} B X}{ALE}$$

$$Antioch. C\ 47 \left( \begin{array}{c} \text{☿} \uparrow \\ \text{ANT}|E \end{array} \right) ; C\ 507, NZ. 1917. 20. 8 \left( \begin{array}{c} Z|* \\ \text{ANT} \end{array} \right) ;$$

$$C\ 297, NZ. 1917. 21. 8 \left( \begin{array}{c} \text{☿} \uparrow \\ \text{ANT}|B \end{array} \right. \left. \begin{array}{c} \text{☿} \uparrow \\ \text{ANT}|\Delta \text{II} \end{array} \right. \left. \begin{array}{c} \text{☿} \uparrow \\ \text{ANT}|I \text{III} \end{array} \right. \left. \begin{array}{c} \text{☿} \uparrow \\ \text{ANT}|\Delta \text{I} \text{III} \end{array} \right) ,$$

$$\left( \begin{array}{c} \text{I} \\ \text{EI} \\ \text{III} \\ \hline \text{ANT} \end{array} \right)^{\dagger}$$

*Nicomedia.* C 283, M. 3. 26-7  $\left( \frac{\text{I} \text{A}^{\dagger}}{\text{SMN}}, \frac{\text{I} \text{B}}{\text{SMN}}, \frac{\text{I} \text{Z}}{\text{SMN}} \right);$

*Cyzicus.* C 283, M. 3. 110-1  $\left( \frac{\text{I} \text{B}}{\text{SMK}}, \frac{\text{I} \text{E}^{\dagger}}{\text{SMK}}, \frac{\text{I} \text{Z}^{\dagger}}{\text{SMK}} \right);$

*Rome.* C 557, NZ. 1925. 18  $\left( \frac{\text{I}^{\dagger}}{\text{RP}} \right);$  C 546  $\left( \frac{\text{I}^{\dagger}}{\text{RP}}, \frac{\text{I}^{\dagger}}{\text{RS}}, \frac{\text{I}}{\text{RT}} \right);$  C 546, NZ. 1925. 20  $\left( \frac{\text{I}}{\text{RP}} \right);$  C 519  $\left( 3 \frac{\text{I}}{\text{RS}}, 2 \frac{\text{I}}{\text{RT}}, \right.$

$\frac{\text{I}}{\text{RQ}}, \frac{\text{R}|\text{F}}{\text{RP}}, 2 \frac{\text{R}|\text{F}}{\text{RS}}, \frac{\text{R}|\text{F}}{\text{RT}}, \frac{\text{S}|\text{F}}{\text{RS}}, \frac{\text{S}|\text{F}}{\text{RQ}}, 6 \frac{\text{R}|\text{F}}{\text{R}*P}^{\dagger(3)}$

$9 \frac{\text{R}|\text{F}}{\text{R}*S}, 10 \frac{\text{R}|\text{F}}{\text{R}*T}^{\dagger(1)}, 7 \frac{\text{R}|\text{F}}{\text{R}*Q}, 9 \frac{\text{R}|\text{F}}{\text{X}|\text{RP}}^{\dagger(1)}, 4 \frac{\text{R}|\text{F}}{\text{X}|\text{RS}}, 14 \frac{\text{R}|\text{F}}{\text{X}|\text{RT}},$

$8 \frac{\text{R}|\text{F}}{\text{X}|\text{RQ}}, \frac{\text{R}|\text{F}}{\text{X}|\text{?}} \right)$

*Ostia.* C 546, M. 1. 282-287.  $\left( \frac{\text{I}}{\text{MOSTS}}^{\dagger} \right).$

*Carthage.* C 73, M. 1. 347-353.  $\left( \frac{\text{I}}{\text{PKA}}^{\dagger} \right).$

*Arelate.* C 546, M. 2. 140-7;  $\left( 3 \frac{\text{S}|\text{F}}{\text{PARL}}, 3 \frac{\text{S}|\text{F}}{\text{TARL}}^{\dagger(1)}, 3 \frac{\text{S}|\text{F}}{\text{QARL}}^{\dagger(1)}, \right.$

$\frac{\text{T}|\text{F}}{\text{PARL}} \left. \right);$  C 536, M. 2. 140-7  $\left( 3 \frac{\text{T}|\text{F}}{\text{*}|\text{PARL}}^{\dagger(1)}, 3 \frac{\text{T}|\text{F}}{\text{*}|\text{SARL}}, 2 \frac{\text{T}|\text{F}}{\text{*}|\text{TARL}}, \right.$

$$2 \frac{\begin{array}{c|c} T & F \\ * & \\ \hline Q & A R L \end{array}}{ } C 546, M. 2. 155-9 \left( 2 \frac{C|S}{SARL} \begin{array}{c} \dagger^{(2)} \\ \end{array}, \frac{C|S}{TARL} \begin{array}{c} \dagger \\ \end{array} \right)$$

$$Lugdunum C 536, NZ. 1917. 30. 25 \left( \frac{F|T}{PLG} \begin{array}{c} \dagger \\ \end{array}, \frac{S|F}{?} \begin{array}{c} \dagger \\ \end{array} \right);$$

$$C 530, NZ. 1917. 30. 25 \left( \frac{S|F}{PLG} \begin{array}{c} \dagger \\ \end{array} \right).$$

$$Treveri. C 546, M. 1. 403-7 \left( \frac{T|F}{BTR} \right); C 15, M. I. 423-9$$

$$\left( 2 \frac{|}{PTR} \begin{array}{c} \dagger \\ \end{array} \right); C 454, M. 1. 474-5 \left( \frac{|}{STRE} \begin{array}{c} \dagger \\ \end{array}, \frac{|}{PTRE} \begin{array}{c} \dagger \\ \end{array} \right)$$

$$Ticinum. C 337, M. 2. 232-3 \left( \frac{|}{PT} \begin{array}{c} \dagger \\ \end{array} \right); C. 342 \left( \frac{|}{ST} \begin{array}{c} \dagger \\ \end{array} \right);$$

$$C 536, M. 2. 247-50 \left( \frac{*|}{ST} \begin{array}{c} \dagger \\ \end{array} \right); C 546 \left( 2 \frac{*|}{P.T} \begin{array}{c} \dagger^{(1)} \\ \end{array} \right).$$

$$LICINIUS I. Alexandria. C 43, NZ. 1911. 179 \left( \frac{\begin{array}{c|c} & B \\ K & P \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}}, \frac{\begin{array}{c|c} & \Gamma \\ K & P \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}},$$

$$\frac{\begin{array}{c|c} S \\ K & P \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}} \right); C 2, NZ. 1911. 180 \left( \frac{\begin{array}{c|c} \cup & B \\ K & X \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}} \right); C. 32, NZ. 1911. 180$$

$$\left( \frac{\begin{array}{c|c} N & H \\ \text{?} & \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}} \right); C 35 \left( \frac{\begin{array}{c|c} * & \dagger \\ N & A \\ \text{?} & \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}}, \frac{\begin{array}{c|c} * & \\ N & Z \\ \text{?} & \text{?} \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}} \right); C 56 \left( \frac{\begin{array}{c|c} * & \\ N & \Delta \\ \text{?} & \text{?} \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}} \right);$$

$$C 72, NZ. 1911. 181 \left( \frac{N|A}{ALE}, 2 \frac{N|B}{ALE}, \frac{N|Z}{ALE} \right); C 108, NZ.$$

$$1911. 181 \left( \frac{\begin{array}{c|c} S \\ N & \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}}, \frac{\begin{array}{c|c} Z \\ N & \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}}, 11 \frac{\begin{array}{c|c} \text{?} \\ A & N \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}}, 3 \frac{\begin{array}{c|c} \text{?} \\ B & N \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}}, 6 \frac{\begin{array}{c|c} \text{?} \\ \Gamma & N \\ \hline ALE & \end{array}}{\begin{array}{c} \dagger \\ \end{array}},$$

$$7 \frac{\begin{array}{c} \text{S} \\ \Delta \\ \text{N} \end{array}}{\text{ALE}}, 21 \frac{\begin{array}{c} \text{S} \\ \text{E} \\ \text{N} \end{array}}{\text{ALE}}, 4 \frac{\begin{array}{c} \text{S} \\ \text{S} \\ \text{N} \end{array}}{\text{ALE}}, 12 \frac{\begin{array}{c} \text{S} \\ \text{Z} \\ \text{N} \end{array}}{\text{ALE}}, 7 \frac{\begin{array}{c} \text{S} \\ \text{H} \\ \text{N} \end{array}}{\text{ALE}} \Bigg);$$

$$\text{C. 108, M. 3. 260-4} \quad 11 \left( \frac{\begin{array}{c} \text{S} \\ \text{K} \\ \text{X} \\ \text{A} \end{array}}{\text{ALE}}, 15 \frac{\begin{array}{c} \text{S} \\ \text{K} \\ \text{X} \\ \text{B} \end{array}}{\text{ALE}} \right); \text{C 108, M. 3.}$$

$$260-4, \left( 7 \frac{\begin{array}{c} \text{S} \\ \text{K} \\ \text{A} \\ \text{X} \end{array}}{\text{ALE}}, 12 \frac{\begin{array}{c} \text{S} \\ \text{K} \\ \text{B} \\ \text{X} \end{array}}{\text{ALE}} \right).$$

$$\text{Antioch. C 35, NZ. 1917. 20. 8} \left( \frac{*|B}{\text{ANT}}, 2 \frac{*|H}{\text{ANT}}, 2 \frac{*|I}{\text{ANT}}, \frac{*|BI}{\text{ANT}}, \frac{*|EI}{\text{ANT}} \right); \text{C 200, NZ. 1917. 20. 8} \left( \frac{*|H}{\text{ANT}} \right);$$

$$\text{C 160, NZ. 1917. 20. 8} \left( \frac{EI|*}{\text{ANT}}^{\dagger} \right); \text{C 123, NZ. 1917. 21. 8}$$

$$\left( \frac{|E}{\text{ANT}}^{\dagger}, \frac{|BI}{\text{ANT}}^{\dagger}, \frac{|AI}{\text{ANT}}^{\dagger} \right); \text{C 108, NZ. 1917. 21. 8}$$

$$\left( \frac{\begin{array}{c} \text{S} \\ \Gamma \\ \text{III} \end{array}}{\text{ANT}}, \frac{\begin{array}{c} \text{S} \\ \text{E} \\ \text{III} \end{array}}{\text{ANT}}, \frac{\begin{array}{c} \text{S}^{\dagger} \\ \text{Z} \\ \text{III} \end{array}}{\text{ANT}}, \frac{\begin{array}{c} \text{S} \\ \text{H} \\ \text{III} \end{array}}{\text{ANT}}, \frac{\begin{array}{c} \text{S} \\ \text{BI} \\ \text{III} \end{array}}{\text{ANT}}, \frac{\begin{array}{c} \text{S}^{\dagger} \\ \text{EI} \\ \text{III} \end{array}}{\text{ANT}} \right)$$

$$\text{Nicomedia. C 37, M. 3. 15-18} \left( \frac{|A}{\text{SMN}} \right); \text{C 64, M. 3. 25.}$$

$$\left( \frac{|A}{\text{SMN}}, \frac{|B}{\text{SMN}}, \frac{|Z}{\text{SMN}}^{\dagger} \right).$$

*Cyzicus.* VAL LICINNIANVS LICINNIVS P F AVG

*Rev.* SOLE IN VICTO Sol with head of Serapis  $\left( \frac{S| \cdot}{\text{MKV}} \right)$

Not in C; M. 3. 99-102 has exergue and field but not

legend, 110 has legend but  $\frac{S|}{SMK}$ ; C. 38, M. 3. 99-102

$\left(\frac{| \cdot |}{MKVE}^{\dagger}, \frac{| \cdot |}{MKVE}^{\dagger}\right)$ ; C 37, M. 3. 100-1  $\left(\frac{| H |}{SMK}\right)$  C 70, MS.

3. 110-2  $\left(\frac{| A |}{SMK}, {}^2\frac{| B |}{SMK}^{\dagger(1)}\right)$ ; C. 64, M. 3. 112-5  $\left(\frac{| III |}{SMK}\right)$

*Heraclea*. C 108, M. 2. 565-7  $\left(\frac{| \Delta |}{SMHT}\right)$

*Siscia*. C 65, NZ. 1920. 108  $\left(\frac{| E |}{SIS}, \frac{| B |}{SIS}^{\dagger}\right)$

*Aquileia*. C 107, NZ. 1923. 7-8  $\left(\frac{| \cdot |}{AQT}^{\dagger}\right)$

*Rome*. C 165, NZ. 1925. 18  $\left(\frac{| \cdot |}{RQ}^{\dagger}\right)$ ; C 162. NZ. 1925. 20

$\left(2 \frac{R|F}{RP}, \frac{R|F}{RS}, 4 \frac{R|F}{RQ}, \frac{R|F}{?}, 3 \frac{R|F}{R * P}^{\dagger(1)}, 4 \frac{R|F}{R * S},\right.$

$2 \frac{R|F}{R * T}, 4 \frac{R|F}{R * Q}^{\dagger(1)}, 3 \frac{R|X|F}{RP}, 3 \frac{R|X|}{RS}, 2 \frac{R|X|}{RT}, \frac{R|X|F}{RT}^{\dagger},$

$7 \frac{R|X|F}{RQ}, \frac{R|S|F}{R?}\left.)\right)$

*Ostia*. C 49, M. 1. 283  $\left(\frac{| \cdot |}{MOST[.]}\right)^{\dagger}$ ; C 165  $\left(\frac{| \cdot |}{MOSTQ}\right)^{\dagger}$

*Arelate*. C 163, M. 2. 140-7  $\left(\frac{S|F}{PARL}^{\dagger}\right)$

*Ticinum*. C 163, M. 2. 247-50  $\left(\frac{*|}{PT}^{\dagger}\right)$

*Forgery*. Apparently over-struck on earlier coin. The second strike is an Alexandrian IOVI CONSERVATORI AVGG

obverse to Licinius, but the coin was originally issued in the name of Galerius. For attribution as forgery see above p. 69.

$$\left( \begin{array}{c} \text{X} \uparrow \\ \text{B} \end{array} \right)$$

CONSTANTIUS II. *Antioch*. C 44, NZ. 1917. 23  $\left( \begin{array}{c} \Gamma | \\ \text{AN} \end{array} \uparrow \right)$

*Cyzicus*. C 44. NZ. 1917. 23  $\left( \begin{array}{c} \Gamma | \\ \text{SMK?} \end{array} \uparrow, \begin{array}{c} \Gamma | \\ \text{SMKS} \end{array} \uparrow, \begin{array}{c} \Gamma | \\ ? \end{array} \uparrow \right)$

*Constantinople*. Mattingly pl. 59, 13, NZ. 1917, 21-32

$$\left( \begin{array}{c} | \\ \text{CONSH} \end{array} \uparrow \right)$$

CONSTANTIUS GALLUS. *Alexandria*. C 7, NZ. 1917. 21-32  $\left( \begin{array}{c} | \\ \text{ALEB} \end{array} \uparrow, \right.$

$$\left. \begin{array}{c} \text{S.} | \\ \text{ALEA} \end{array} \uparrow, \begin{array}{c} \text{S.} | \\ \text{ALE} \end{array} \uparrow \right)$$

CASPER J. KRAEMER, JR. AND THEODORE G. MILES



## A SOLIDUS OF ARTAVASDUS

(SEE PLATE XV)

Early in 1949 the Museum purchased an extremely rare Byzantine solidus, a piece bearing the name of the usurping general and brother-in-law of Constantine V, Artavasdus, an image-worshipper who, with his two sons, attempted to displace the iconoclastic emperor and failed, after having actually held Constantinople for some time.<sup>1</sup>

*Obv.* Bust of Artavasdus wearing crown with cross; beneath crown, his hair in four curls across forehead, wavy locks hanging down on either side; beard on cheeks and chin. Artavasdus' robe is represented by vertical lines; brooch and ties on r. shoulder. In his right hand he holds patriarchal cross half-way across his breast.<sup>2</sup> His left hand is invisible. Cable border. Around rim, l. to r., ϠΑΡΤΑΥΑ ΣΔΟΣΜΥΛΤ.<sup>3</sup>

<sup>1</sup> A full account of the course and issue of the revolt is to be found in chapt. III of A. Lombard's *Etudes d'histoire Byzantine, Constantine V, Empereur des Romains* (740–775), *Bibliothèque de la Faculté des Lettres*, Paris, 1902, pp. 22–30. For brief accounts of this interlude in the reign of Constantine V, see A. Vasiliev, *History of the Byzantine Empire* (*University of Wisconsin Studies in the Social Sciences and History* no. 13), Madison, 1928, pp. 317–318, and for a general survey of the iconoclastic era, pp. 307–324; 342–365; and from the point of view of the West, E. Caspar, *Geschichte des Papsttums*, II (Berlin, 1933), pp. 738–739. Recently T. Wittemore (*Orientalia Cbristiana Periodica* XIII, 1947, 1–2, Miscell. G. Jerphanion, pp. 376–383: “An Unpublished Byzantine Seal,” a reference for which I am indebted to Mr. James Breckenridge), has given a brief account of Artavasdus' career.

<sup>2</sup> The patriarchal cross had previously appeared on coins of Justinian II and his son Tiberius (*BMC*. II, pp. 355–357) and Theodosius III (*BMC*. II, pp. 363–364). Under Theophilus it was used as a reverse type (*BMC*. II, pp. 419, 427). For its subsequent use as a type see *BMC*. II, index, p. 653.

<sup>3</sup> On this abbreviated acclamation wishing long life to the Emperor, see *BMC*. II, p. 332, note 1. In the records of the Councils of this period there are instances of similar acclamations (Cabrol, *Dictionnaire d'Archéologie et de Liturgie Cbrétienne*, s.v. *Acclamations*, col. 244), and a precedent for this form of acclamation can be found in the life of Severus Alexander in the collection of imperial biographies known to us as the *Scriptores Historiae Augustae*, X, 8: *multis annis imperes*. Other acclamations occur in these biographies, but they usually take a different form such as *di te seruent*.

*Rev.* Cross potent on three steps. Around rim, l. to r.,  
 INSUSXRIS TUSNIC Δ In exergue, CONOB.

21 mm. 4.43 grams. A die-break appears in the upper left-hand field, between cross and S of XRIS. PLATE XV, 1.

It seems probable that our piece is to be identified with the solidus illustrated in Spink's *Numismatic Circular*, XXXVII (1929), col. 292, and with the piece of which there is a photograph on p. 144 of Goodacre's *Handbook of the Coinage of the Byzantine Empire*, Pt. II (London, 1931). The photographs, as reproduced, do not permit me to be absolutely certain that we are dealing with one, and the same, coin. There is a similar piece of different denomination — a semissis — and of slightly different reverse type at the Fogg Museum of Art in Cambridge, whose Director has kindly permitted me to illustrate it here (PLATE XV, 2) as a companion piece to our solidus. The reverse of this beautiful piece, like our solidus, bears a cross potent; the cross does not rest on three steps, however, but on a globe.<sup>4</sup> Both of these coins are to be compared with a seal, bearing cross potent and only the name of Artavasdus, published a few years ago by T. Whittemore (see note 1 and PLATE XV, 7). Whittemore believed that his seal might well belong to a period before the actual enthronement of Nicephorus as his father's colleague, and found support for his supposition in the existence of coins minted in the name of Artavasdus alone.

The great rarity of these gold coins is due to their reverse type, for more commonly the reverses of Artavasdus bear the portrait of his son and co-ruler, Nicephorus. The reverse type with the cross potent *and the legend* IHSVS XRISTVS NICA appears in silver (*BMC.* II, p. 391) and gold under Artavasdus.

<sup>4</sup> This type is characteristic of *semisses* since Heraclius, therefore conventional. The Fogg piece (wgt. 33 grains or 2.1384 grams) was found on the island of Zacynthus. I am particularly indebted to Mr. Roland Gray for information on this coin and for providing me with a photograph.

It persisted as a silver type, i.e., followed the practice of the legitimate emperor, Constantine V. Gold pieces which form the exception to the rule were apparently struck only (after Artavasdus) by Nicephorus I (802–811 A.D.).<sup>5</sup>

The fact that Constantine V struck the type and legend on silver does not necessarily make him the innovator. The type with the cross potent is not new under either Constantine or Artavasdus, though the legend *IHSVS XRISTVS NICA* is. The use of this legend by Artavasdus is earlier than its use by Constantine. For the silver pieces of Constantine on which both type and legend were struck are actually pieces of Constantine and his son Leo IV (associated with his father from 751 A.D.), and are therefore to be dated later than the fall of Artavasdus.<sup>6</sup> The substitution of what we might loosely call Artavasdus' *Christ Nicator* legend for the usual *Victoria Augu* legend with the cross potent is a religious adaptation of a secular idea, a procedure appropriate to the image-worshippers, who had seen the beginning of the secularization of the reverse under Leo III and Constantine V through the placing by these emperors of an imperial bust (or busts) where the cross had formerly been.<sup>7</sup> Leo III had kept the cross and the *Victoria Augu* legend. Leo III and Constantine had substituted imperial bust on the reverse, but as we have seen here, some years after the suppression of the revolt of Artavasdus, Constantine, on silver pieces, with his son Leo IV, adopted the rebel's religious type, possibly as a concession to the still

<sup>5</sup> *BMC*. II, p. 401.

<sup>6</sup> *BMC*. II, p. 380.

<sup>7</sup> *BMC*. II, pp. 366–371; 373–376; 378–387. An excellent picture of the secular nature of the gold coinage of the period can be had from the photographs of the exceptional Lagbe Hoard, published posthumously by E. T. Newell (*The American Numismatic Society NNM*. no. 105, New York, 1945). The doctrinal character of the hoard, containing only pieces of the iconoclastic emperors (Irene's *sole* reign is not represented), was pointed out by A. R. Bellinger, "The Emperor Theophilus and the Lagbe Hoard," *Berytus*, VIII (1944), p. 103.

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powerful iconodules as a kind of act of *evocatio*, in which the victor over the image-worshippers stole their thunder. Thereafter cross potent with religious legend persisted, but with the exception of the gold pieces struck by Nicephorus I,<sup>8</sup> the combination seems to have been relegated to silver,<sup>9</sup> showing that the example of the legitimate emperor, Constantine V, rather than the precedent of Artavasdus, his unsuccessful rival, who struck type and legend on both gold and silver, was followed by subsequent dynasts.<sup>10</sup> The reason for this seems to be that the gold was reserved for imperial busts, a practice which continued after the first iconoclasts were overthrown. For even the triumph of the iconodules under the Empress Irene did not bring a return of the head of Christ, first placed on the coinage under Justinian II.<sup>11</sup> The coinage itself, consequently, does not define the two periods of iconoclasm, but we have a continuous scheme of predominating imperial portraits from the first iconoclastic period (beginning under Leo III and

<sup>8</sup> See note 5. The old cross potent type with the *Victoria* legend is found on western solidi of Constantine V.

<sup>9</sup> For three centuries the reverses (or would they more properly be called 'obverses' as Sabatier regarded them) of the silver coins were entirely epigraphical (except for the decorative features such as the rims and as the designs that appeared early in the tenth century); from the time of Constantine VII the cross became more and more elaborate, and to it was added a medallion or cover on which the Emperor's bust was represented, making a reliquary from what was formerly a mere symbol (G. Schlumberger, *Un Empereur Byzantin au Dixième Siècle, Nicéphore Phocas*, Paris, 1890, p. 494).

<sup>10</sup> On the other hand precedent set by Artavasdus for the silver coinage — the epigraphical type with border of three rings — has probably been overlooked because the silver coinage which most immediately copies it — that of Constantine and Leo IV (*BMC.* II, p. 380) — precedes the coinage of Artavasdus (*BMC.* II, p. 391) in the catalogues. This article is dealing primarily with the gold coinage, but we may be pardoned for pointing out here that the brief floruit of Artavasdus introduced the epigraphical type, which once was freely used on Roman and Greek coins, to the Byzantine coinage.

<sup>11</sup> *BMC.* II, pp. 331-335; 336; 341-343; 345; second reign, pp. 354-356. Evidently under Irene's sole reign, however, the imperial busts are dropped from the reverses of the bronze, where they had intruded upon the mark of denomination (particularly M), rendering it half its usual size (see *BMC.* II, Pls. XLIV and XLVI).

Constantine V) through the second (Leo V–Theophilus),<sup>12</sup> at the end of which the head of Christ finally reappeared under Michael III and Theodora, his mother.<sup>13</sup>

In order to appreciate better the confused period into which we have been plunged by the acquisition of our extraordinary solidus, let us notice other gold types struck by Artavasdus. The British Museum Catalogue lists one Constantinopolitan solidus in the Bibliothèque Nationale, with two busts, one of Artavasdus on the obverse, and another, of his son Nicephorus, on the reverse.<sup>14</sup> In addition there are pieces attributed to Rome, of two types. Type 2 has a portrait of Nicephorus on the reverse (PLATE XV, 3).<sup>15</sup> Type 1 has a reverse legend indicating that the person represented is a Constantine (PLATE XV, 4), who can be none other than Constantine, the legitimate Emperor!<sup>16</sup> Wroth (*BMC.* II, p. 392, note 1; cf. vol. I, p. xxxviii) believed that the die-engraver mistakenly copied the head and legend of Constantine from the solidi of Leo III and Constantine V, and pointed out that except for the inscription, the types are practically identical. But the reverse of this coin bears two stars,<sup>17</sup> like its counterpart with portrait of Nicephorus., and unlike the coins of Leo and Constantine, which bear one star. There is then reason to assume that the issue with the portrait of Constantine was an issue in itself, independent of the coinage of Leo and Constantine, but, on the other hand, paired off with the coins struck with portraits of Artavasdus and Nicephorus likewise bearing two stars on

<sup>12</sup> Under Theophilus (*B.M.C.* II, p. 419) a patriarchal cross and a new religious legend appear on the solidi.

<sup>13</sup> *BMC.* II, p. 430.

<sup>14</sup> *BMC.* II, p. 391.

<sup>15</sup> *BMC.* II, p. 392.

<sup>16</sup> *Ibid.*

<sup>17</sup> Seldom is there more than one star on earlier coins (there are two on *BMC.* II, p. 374, no. 52, Pl. XLIII, 9, a tremissis of Leo III and Constantine V, but this seems an exception rather than the rule).

the reverse. For if these stars mean anything, surely they have reference to a definite issue at a definite mint.<sup>18</sup>

One would like to find further grounds for denying a die-engraver's error in evidence provided by a piece published by Tolstoi (*Monnaies Byzantines*, St. Petersburg, 1914, p. 963, no. 6), which, while having the same types (Artavasdus, Constantine, two stars) is of very different style from the Paris piece, and cruder (PLATE XV, 5). Tolstoi, in a long note,<sup>19</sup> showed himself greatly disturbed by his piece, which he described as electrum; and he wavered between the possibilities that it was an ancient forgery or a piece struck in the West at a mint far from ready contact with Constantinople and in confusion as to the true state of imperial affairs.<sup>20</sup> Further suspicion was cast on this piece by Laffranchi ("Il Solido di Artavasdo nel Medagliere Reale di Torino," *Numismatica e Scienze Affini*, II, 1936, p. 87), who suspected it and subsequently found in the Brera Collection a similar piece made of an alloy of tin and lead such as was used by Becker. Laffranchi did not illustrate the Brera forgery, but he did reproduce a piece in trade which he supposed was of the same alloy but gilded. This very piece, it seems, now turns up in the numismatic collection of The Johns Hopkins University (PLATE XV, 6). It was formerly in the Garrett Collection, having been acquired by John W. Garrett at the Baranowsky

<sup>18</sup> Cf. the two stars on the reverse of certain coins of Severus Alexander at Edessa in Mesopotamia. Perhaps a closer analogy is to be sought in late imperial gold and in Byzantine bronze bearing two stars.

<sup>19</sup> For the translation of this note from the Russian I am indebted to the kindness of Mr. R. P. Breaden.

<sup>20</sup> For a brief account of conditions in Italy and Sicily at this time, the effect of the iconoclastic movement on relations between Rome and South Italy and Sicily, as well as the relation of the latter territories to Constantinople, see Jules Gay, *L'Italie Méridionale et l'Empire Byzantin depuis l'avènement de Basil Ier jusqu'à la prise de Bari par les Normands, 867-1071* (*Bibliothèque Écoles Françaises d'Athènes et de Rome*, vol. 90, pp. 7-14; on government in Italy after the break with Leo III, see the *Cambridge Medieval History*, II, pp. 231-233 and 576-580.

Sale, June 23, 1931 (lot 213), and was regarded as genuine by Mr. Garrett's advisers. It has not been possible for me to see the coin, but Dr. S. E. Freeman, in charge of the collection at Hopkins, has generously sent me photographs and a full description. Without finally denying that this piece and the Tolstoi piece, similar to one another but differing in style from the Paris piece, may yet be found to be genuine or at least to have been inspired by some unquestionably genuine piece from a provincial mint, I may add to Tolstoi's suspicions and Laffranchi's convictions the damning evidence of the weights. The Tolstoi piece has a weight of 5.7 grams, the American piece weighs 2.85 grams. Considering the good condition of the coins, these weights diverge very seriously from a required weight in the neighborhood of 4.0 grams. But our information about the provincial coinage is still too scant for final judgment. A perusal of the figures in Wroth's catalogue (*BMC. II*) reveals that the imperial solidi of Leo III and of Constantine V are regularly in the neighborhood of 68 grains (ca. 4.41 grams), while the provincial pieces run around 60 grains (ca. 3.89 grams) in weight. A coin showing any striking divergence in weight is therefore suspect. The style is unquestionably barbaric. On the other hand, before rejecting it, we shall have to be sure that the Hopkins piece is not simply a debased piece comparable to the light-weight potin pieces of Constantine V (*BMC. II*, p. 386), and originally or subsequently plated.<sup>21</sup>

Our faith in the Paris piece abides.<sup>22</sup> DeSaulcy discussed

<sup>21</sup> In the Baranowski Catalogue the Paris piece was regarded as South Italian, the present Hopkins piece as Roman. The latter was described (p. 15) as "elettro bassissimo."

<sup>22</sup> I am indebted to M. Jean Babelon for a cast and the weight of this piece. Besides the piece discussed here, Tolstoi lists and illustrates two solidi of Artavasdus that were in the Montagu Collection Sale (Rollin and Feuwardent Sale Catalogue, Paris, 1896, nos. 1190-1191), the four Paris pieces (three gold and one silver) listed and illustrated by Wroth in *BMC. II*, pp. 391-392 (Pl. XLV, 16-19); and a tremissis of Artavasdus and Nicephorus, comparable to Wroth's "Roman" solidus of A. and N. but incorrectly designated as silver on T.'s Pl. 67, no. 7. Similar to the latter is a "demi-sou" in

this specimen,<sup>23</sup> and was certain of its authenticity, in spite of its "fabrique barbare." He suggested that it might have been struck during a period of alliance (known from no other source) between the rival brothers-in-law. Finley, *History of the Byzantine Empire* (Everyman ed.), p. 45, followed De-Saulcy: "Artavasdos marched to Constantinople where it appears from coins he affected for some time to act as the colleague of Constantine; and it is possible that some treaty may have existed between the brothers-in-law." Now Wroth in "The Study of Byzantine Numismatics," *Corolla Numismatica, Numismatic Studies in Honour of Barclay V. Head*, London, 1906, pp. 330-331, had a great deal more to say about the Roman and Italian coinage than appears in his later comments in BMC. II, p. xxxii. Following Professor Oman in both places, however, he compares some of these coins to the earliest Papal coins.<sup>24</sup> The Paris piece probably should be studied in

Sabatier's *Descr. Gén. des Monn. Byz.* II, p. 58 (Pl. XL, 14), the only Paris piece not illustrated by Wroth, but mentioned in note 2 on p. 392. Sabatier has a drawing of the reverse only. There is, furthermore, a solidus of A. and N. illustrated in Spink's *Numismatic Circular*, 1923, col. 433, no. 22462, and Laffranchi published one in the Royal Collection at Torino in 1936 (*Numismatica e Scienze Affini* II, pp. 85-86. I understand from Mr. James Breckenridge that there are three pieces of Artavasdos in the Peirce Collection at Dumbarton Oaks, a solidus (Artavasdos and Nicephorus) and two silver pieces, types mentioned in BMC. II, p. 391. It is hoped that as a result of this article other pieces not generally known will come to light. Through the kind offices of Dr. George C. Miles and Mr. Philip Grierson I have learned that some solidi of Artavasdos were found recently in Sicily. Details on these pieces have been kindly furnished by Dr. Santi Luigi Agnello, who tells me that two solidi with the bust of Nicephorus on the reverse and of Constantinopolitan mintage were found at Taormina.

<sup>23</sup> *Essai de Classification des Suites Monétaires Byzantines*, Metz, 1836, pp. 156-157. For recent comment see T. Whittemore, *op. cit.* (see note 1 of this article), p. 379, note 4.

<sup>24</sup> "RM (Rome)" appears on some coins of Constantine V (BMC. II, Pl. XLV, 10) which resemble the pieces we are discussing in fabric and lettering, and also occurs on the coins of Hadrian I (C. Serafini, *Le Monete Bolle Plumbee Pontificie de Medagliere Vaticano*, I, Milano, 1910, Pl. I, nos. 3 and 4), where the lettering as well as the types is similar to that on our pieces. It is perhaps of incidental interest only that the form of the letter A (Δ), which apparently did not occur previously on papal bullae and appears on the bullae of Zacharias and his successor Stephen, is the form commonly found on the Byzantine pieces we have been discussing.



the light of the coinages which it most resembles; i.e., its *westernness* should be emphasized. It is not necessary to explain it from the point of view of the East. For lack of evidence of an imperial rapprochement such as DeSaulcy and Finley suggested, it would seem most natural if the Paris piece were regarded as a product of western thinking, as well as of provincial fabric.

Historical evidence leaves room for the possibility of a combination of the portraits of Artavasdus and Constantine on coins struck in the West. The West was split and confused in the iconoclastic controversy, and the Paris "hybrid" may reflect the uncertainty of officials as to Constantine's true position, since Constantinople was actually in the hands of Artavasdus for a considerable time. Ties between Rome and Constantinople were not yet utterly broken, but imperial officialdom was greatly weakened in the West, and officials in Rome must have looked to the Pope for a definite attitude toward the situation in the East. Pope Zacharias hoped that the controversy would be settled with the restoration of the images, and consequently it is to be expected that he could not have looked wholly askance at the revolt of Artavasdus; but papal records show that the position he took and his character were precisely those of a man who saw his rôle as a cautiously moving diplomat and peacemaker. To establish peace with the ever-present Lombards he worked constantly, and he seemed desperately in earnest to work out a *modus vivendi* with Constantinople without yielding to the iconoclasts. If we turn to the records of Zacharias during the early years of his papacy, we see that the method of dating his documents presents a picture not unlike the awkward problem with which we are faced by the coin bearing the portraits of both Artavasdus and Constantine. We shall try to present simply the formulae used in the pertinent documents, without under-

taking to offer a detailed presentation of the problems of chronology involved here, or of eighth century chronology in general.

Letters of Zacharias are dated in accordance with the years of either Constantine or Artavasdus, each being called "emperor." I quote from the closing of several of the letters, where the names of the emperors and the date appear. The quotations are taken from Migne's *Patrologia Latina*, vol. 89, cols. 922-929: *Ep.* II. Data Kalendis Aprilis, imperante domino piissimo Augusto Constantino a Deo coronato magno imperatore, anno XXIV, imperii eius anno secundo, indictione 11. *Ep.* III has a similar ending. *Ep.* IV has no dating. *Epp.* V and VI are dated by Artavasdus and Nicephorus: Data X Kalendas Julias, imperante domino Artavasdo a Deo coronato magno imperatore anno III post consulatum eius anno III, sed et Nicephoro magno imperatore anno III, indictione 12; Data Nonis Novembris, imperante domno piissimo Augusto Artavasdo a Deo coronato magno imperatore anno III post consulatum eius anno III, sed et Nicephora magno imperatore eius filio anno III, indictione 13. *Ep.* VII goes back to dating by the years of Constantine. To be compared with the papal letters is the record of a Roman synod dated in Artavasdus' second year, twelfth indiction, and the thirty-second year of Liutprand.<sup>25</sup>

<sup>25</sup> For the documents see Migne, *Patrologia Latina*, vol. 89, cols. 922-929; for summaries see P. Jaffé, *Regesta Pontificum Romanorum ab condita Ecclesia ad annum post Christum natum* 1198, ed. 2, G. Wattenbach, S. Löwenfeld, F. Kaltenbrunner, P. Ewald, vol. I (Leipzig, 1885), pp. 263-265, where all documents dated according to the years of Artavasdus and Nicephorus are placed in 744 A.D., those of Constantine in 743 and from 745. For the chronology see, for example, the general works by Dölger, *Regesten der Kaiserurkunden des Oströmischen Reiches von 565-1453*, Pt. 1 (Munich and Berlin, 1924), p. 37 and E. Caspar, *Geschichte des Papsttums*, II (Berlin, 1933), pp. 738-740. For detail of evidence and argument, see H. Hubert, "Observations sur la chronologie de Théophane et de quelques lettres des papes (726-774)," *Byzantinische Zeitschrift* VI (1897), pp. 491-505 (synchronistic table on p. 505), and E. W. Brooks in the same periodical, vol. VIII (1899), pp. 82-97, "The Chronology of Theophanes 607-775;"

The general chronological scheme to be gleaned from these documents is as follows: 1) the earliest documents are dated by the regnal years of Constantine; there follows 2) a series of letters dated by the regnal years of Artavasdus and Nicephorus (that Artavasdus and Nicephorus were joint rulers is borne out by the coins), the imperial title and the form of the date (though not the date itself) being similar to the form used for Constantine; and 3) the final series is again dated by the regnal years of Constantine. It can be seen at once that this scheme allows for an interruption of Constantine's reign by the rebellion of Artavasdus, and for the acceptance of Artavasdus as emperor for a time in the West. I do not present here in the main body of my article any actual dates, since the errors or inconsistencies in these do not affect the general argument, and anyone wishing to delve into the chronology of the papal records will find these stated in the works referred to in footnote 25. Let it suffice that the above outline shows that at some point after the accession of Constantine V, Artavasdus was recognized by Zacharias as legitimate emperor; then, after his defeat, or the arrival of news assuring his defeat and the ability of Constantine to maintain himself on the throne, the Pope again acknowledged Constantine as emperor.<sup>26</sup>

more recently, G. Ostrogorsky, "Die Chronologie des Theophanes im 7. und 8. Jahrhundert," *Byzantinisch-Neugriechische Jahrbücher* VII (1930), pp. 1-56 (brief summary of the chronology in footnote on p. 18). The critical months of the accession and fall of Artavasdus are July and November. Roughly, the dates of A. are given by the scholars cited above as follows: Dolger, 741-742; Caspar (p. 739), 741-743; Hubert, 741-742; Brooks (p. 85), 742-744; Ostrogorsky, 742-743. Lombard (see note 1 of this paper), accepted by Laffranchi (see p. 92 of this paper), regarded the revolt as lasting 741-742. Recently, in publishing a unique seal of Artavasdus (see note 1 of this article), Whittemore has followed Ostrogorsky in assigning the reign of A. to 742-743. The crux of the problem is the determination of errors (or the explanation of seeming errors) in eastern and western chronology and the reconciliation of the two.

<sup>26</sup> In the light of the documents, the statement in the *Cambridge Medieval History*, IV, p. 17, that the Pope was loyal to Constantine during the rebellion of Artavasdus is no more than half a truth. Finley's belief that the Pope acknowledged A. as Emperor

The papal documents tend to make the defeat of Artavasdus come at least a year too late. The difficulties created by the dates in these documents may be due to real mistakes or misunderstanding, or, since the return to the dating by the regnal years of Constantine is generally later than it should be, to the continued dating from the accession of Artavasdus by the cautious Papal Chancellery for a long time after the triumph of Constantine. Just so, earlier, the dating according to the years of Artavasdus came only slowly, showing a cautious shift to the iconodule usurper. In either case, these difficulties are created by the times and the men, and they do not invalidate the documents, but only necessitate their clarification.

Now in the general works I have read, these documents have not been associated with the coinage, as is natural, since the value of the evidence of coins in historical studies is only gradually attaining recognition. It is surprising on the other hand that the coins of Artavasdus have not been examined by numismatists in relation to the papal documents,<sup>27</sup> for Artavasdus' brief career is coincidental with days of real decision for the emperor's power in the West, as well as for the beginning of the Papacy as a temporal power, and the evidence of such documents may well make the coinage more comprehensible. We have often yielded much too readily to the

(*History of the Byzantine Empire*, (Everyman ed.), p. 45) is likewise not the whole truth. H. K. Mann, *Lives of the Popes in the Middle Ages*, I, 2, p. 252, note 1, says that Finley's statement is only true "if the Pope's use of Artavasdus' name in dating documents be regarded as an acknowledgement of his claims," a remark that seems exceedingly strange, for what else can the use of the names of A. and N. in substitution for the name of Constantine mean? E. Caspar, *Geschichte des Papsttums*, II (Berlin, 1933), pp. 738-740 and notes 1 and 2 on p. 739, gives a summary and a penetrating interpretation of the evidence. He dwells on the function of Zacharias as compromiser and peace-maker. For the life of Zacharias see L. Duchesne, *Le Liber Pontificalis*, I, Paris, 1886, pp. 426-439; Mann. *op. cit.* pp. 225-288; and *The Catholic Encyclopedia*, XV (New York, 1913), pp. 743-745.

<sup>27</sup> Wroth noted briefly (*BMC*, I, p. xxxviii, note 1) that "there are some Papal documents dated by the years of Artavasdes."

temptation to throw out coins difficult to understand. The papal documents we are citing are not thrown out because difficulties for imperial chronology are inherent in them; let us then dally a little longer with a troublesome coin. History is an abstraction which eludes us; but the records left us may be real, however full of inconsistencies or contradictions.

The nature of the non-Constantinopolitan coin with the portrait of Constantine V on one side and Artavasdus on the other, does not of course exactly parallel the papal documents, for Constantine and Artavasdus are linked together on the coin, as they are not in the papal documents, since the latter are dated by either one man or the other, and the dates do not overlap. But the change of allegiance to Artavasdus and Nicephorus, and the countershift of allegiance back to the victorious Constantine, who evidently rewarded rather than punished the Pope,<sup>28</sup> shows the desire of Zacharias to work with Constantinople (iconoclast or iconodule) rather than to renew the troubles that resulted from the opposition of Rome under Gregory II to the iconoclasm of Leo III; and because of some such desire to keep peace in the West and with the Empire, the coinage struck there may have been a compromise coinage, giving recognition to both Constantine V and Artavasdus pending further developments,<sup>29</sup> and temporarily

<sup>28</sup> By presenting him with Ninfa and Norma, two Volscian towns, desolate today, but worthy of a visit for their sites and their history. See Caspar, *op. cit.* pp. 738-739; Mann, *op. cit.* pp. 251-252. Zacharias asked the ceding of these domains along with the restoration of the cult of the images (Duchesne, *op. cit.* pp. 432-433 and Jaffé, *op. cit.* p. 263). Zacharias' request, like his dealings with the Lombards, reveals the growing importance of his secular position.

<sup>29</sup> A similar picture is to be seen in the evidence for the embassy sent to Constantinople by Zacharias (Duchesne, *op. cit.* pp. 432-433 and note on p. 438). The ambassadors found Artavasdus in power. According to Mann's interpretation (*op. cit.* p. 252) they withdrew into retirement to await "the issue of events." But the *Liber Pontificalis* is silent at this point. We are simply told that after Constantine's victory the ambassadors presented him with their letter and received friendly treatment, the request for Ninfa and Norma being granted. J. P. Kirsch in *The Catholic Encyclopedia* XV, p. 744, remarks that the papal envoys do not seem to have come into close relation with the

guaranteed to pass as valid, whatever faction, that of Constantine or his brother-in-law, came out victorious. The papal documents show that Zacharias went beyond compromise and recognized Artavasdus, whose hope to be the victor probably lies veiled in the new and religious legend on the reverse of our solidus; IHSVS XRISTVS NICA is a challenge of the image-worshippers to the iconoclasts and their revolutionary secular coinage with imperial busts on obverse and reverse. The pattern of this coinage the iconodules felt obliged to continue, and it was never really interrupted during the long course of the controversy; but if Artavasdus had won, perhaps there would have come into existence more new religious types. Lest we be too impressed with the rarity of our piece, the die-break on the reverse reminds us that other solidi were struck along with it, though the issue seems generally to have perished.

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usurper, but Duchesne (*op. cit.* p. 438) says it is difficult to believe that the Pope's embassy made no gesture toward Artavasdus, an orthodox prince. The fact is that we do not hear of the embassy again until the victory of Constantine. But the western documents show that the Pope definitely did not ignore Artavasdus.

#### KEY TO PLATE XV

1. Solidus. Artavasdus. Imperial mint. The American Numismatic Society, New York.
2. Semissis. Artavasdus. Imperial mint. Fogg Museum of Art, Cambridge, Mass.
3. Solidus. Artavasdus and Nicephorus. Provincial mint. Bibliothèque Nationale, Paris.
4. Solidus. Artavasdus and Constantine V. Provincial mint. Bibliothèque Nationale, Paris.
5. Solidus. Artavasdus and Constantine V. Tolstoi, *Monnaies Byzantines* (St. Petersburg, 1914), Pl. 67 no. 6.
6. Solidus. Artavasdus and Nicephorus. The Johns Hopkins University, Baltimore, Md.
7. Seal of Artavasdus. Published by T. Whittemore, *Orientalia Christiana Periodica*, XIII (1947), 1-2 (*Miscell. G. Jerphanion*), opp. p. 376. Reduced from Whittemore's photograph, which shows the seal enlarged to twice its size.

THE DESIGN OF FLORENTINE FLORINS AS AN AID  
TO THEIR DATING  
(SEE PLATES XVI–XX)

*Introduction.*

In the long series of gold florins of Florence, covering the period 1252–1533, the chief guide to dating is furnished by the mint marks of the guild officials (*pro Arte Kallismale*), usually two in each year, as recorded by Orsini, in his *Monete della Reppublica Fiorentina*, 1760. These mintmarks, which are placed in the field of the reverse to the left of the figure of St. John the Baptist, are depicted by Orsini in marginal woodcuts in his text. The mint records consulted by Orsini were not complete, and all the symbols are not known. Furthermore Orsini's representations are often found, by comparison with actual coins, to be inaccurate; he apparently had not seen many of the coins. (Those in his own collection, marked by an asterisk, comprise less than half his listings.) Where the mint records spoke for instance of the "Spini arms" or the "Castelanni arms," Orsini depicted one form of these, while examination of the coins shows another form, or sometimes two different forms at different times. A difficulty frequently met with in his tabulation of mintmarks is that, since members of the same family, and often the same individual, recurred as mint masters during the two hundred year period, (Canigiani is recorded 24 times, Castelanni 15 times, Alessandri 10 times), the same mintmark is often found listed with no clue as to how it is to be differentiated, if at all, in its various appearances. In some cases the mintmarks of different families are depicted with no distinguishable differences.

The second principal source for mintmarks and dating information is the Florentine section of the *Corpus Nummorum Italicorum* (Vol. XII). This, however, is based on Orsini, and although the Corpus lists an extensive series of the florins, (some, however, merely references to Orsini, and of these, many not in Orsini's collection) the photographic illustrations given are principally of coins of "unknown" mintmasters; the opportunity for photographing the original coins, which would have taken little or no more space, was not availed of. Where *C.N.I.* makes attributions different from Orsini, as occasionally happens, no authority is given for so doing.

A third source for attributions is the Supplement to the Vienna *Catalogue des Monnoies en Or* of 1769, where engravings of some 200 florins are given, with assigned dates. Orsini is cited in the Vienna catalogue as the general authority, but some attributions are given which differ from Orsini, and the authority for them is not given.

A fourth source for attributions of the earlier florins is the article by Paul Joseph (*Zeit. des Verein zur Erforschung der rheinischen Geschichte und Alterthümer zu Mainz*, Vol. III, 1868-87, 179-272) on the large hoard of florins dating before 1391 found at Bretzenheim. Joseph uses Orsini as one of his authorities for attributions, but shows drawings of all the mintmarks found, made from the actual coins, which are considerably more accurate and helpful than Orsini's woodcuts.

The rather large collection of florins in the Museum of the American Numismatic Society from the Scoville bequest, together with collections in the hands of members of the society, comprising together about 150 specimens, has presented, with the task of attribution, an opportunity to make a study of the sequence of variations in design details of the coins. This in turn has proved of assistance in dating pieces left in doubt by the shortcomings of the listings above quoted.



*The Principal Florin Types.*

Three florin types have heretofore been recognized, designated in *C.N.I.* as the "small florin," the "first large florin," and "the second large florin." These three types are shown in PLATE XVI, by Figures 1, 7, and 9. The small florin, Fig. 1, of diameter 20 mm, issued from 1252 to 1422, is characterized, apart from its size, by the fringe on the cloak of the figure of St. John, which occupies the reverse. The first large florin (No. 7), of diameter 22 mm, issued from 1422 to 1459, differs from the small florin by having a plain edged cloak, without fringe. The second large florin (No. 9), continuing the size of the first large florin and issued from 1459 to 1533, has a new representation of St. John, with a goatskin skirt or kilt. Where, as is frequently the case, Orsini shows the identical mintmark occurring in two or three of these periods the exact attribution can be made with considerable confidence, by noting these fabric differences. This is illustrated by Nos. 1 and 3 on PLATE XVI, where the Alessandri symbol occurs for the small florin of 1400 and the first large florin of 1434, and again in Nos. 8 and 9, where the Valori symbol occurs on the first large florin of 1440 and the second large florin of 1473.

There are, however, cases where even within these periods the same mintmarks and mintmasters occur more than once. Sometimes Orsini indicates the addition of initial letters or dots to distinguish the different years, but often these differentiations are missing; the monogram of P. Castelanni (Nos. 4 and 5) for instance is shown three times, without modification, in the period of the small florin. It is reasonable to suppose that identical mintmarks would not have been used in different years unless some difference existed in the coins by which the issues could be identified for purposes of "pix" trials or the like. This supposition is supported by the observation, from

study of the collections at the American Numismatic Society that there are in fact *two* types of the small florin, in place of the single type heretofore distinguished.

This second type of small florin differs from the first in that the cloak of St. John is given the plain unfringed edge, heretofore considered to have been introduced with the first large florin. It appeared about 1410, and continued until 1422, at which time the only change was in the size of the florin. The difference between the two types of small florin is shown in Nos. 1 and 2, both exhibiting identical Alessandri mintmarks, and in Nos. 4 and 5, where the florins under the mintmastership of P. L. Castelanni, undifferentiated by Orsini, are shown, one in the fringed period, the other in the unfringed.

The date of the transition from the fringed to the unfringed cloak in the small florin can be fixed rather definitely from coins available for study at the American Numismatic Society. The first appearance of the unfringed skirt is in 1409, in the piece illustrated in No. 2. In the following year, 1410, pieces of both semesters in the author's collection show the fringed skirt. From 1411, for which pieces of both semesters are also in the author's collection, to the end of the period of the small florin, the skirt is unfringed. Now, according to Orsini, there occurred a change of mint engravers in 1409, Piero Gori being succeeded by Giovanni Giorgii, who, with a Michelozo (variously listed as "Michelozo," "Mieheloza Borgognonis," and "Michelozzo Bartolomei") and a new engraver, Tommaso Scarlattini, lasted well into the period of the first large florin. It appears then that the "second small florin" appeared tentatively in 1409, and definitely in 1411, and the change in design coincided with a change of engravers at the mint.

*The Design of the Obverse.*

The obverse changes little throughout the whole series, consisting of a fleur-de lys surrounded by the inscription FLORENTIA. Small changes in details occur, however, following a progressive and consistent pattern. These occur in the two pendants to right and left of the stem of the lily, and in the two "flowers" to right and left at the top of the lily.

Taking up first the pendants, the earliest florins (before 1300) show slender, unopened leaves (PLATE XVII, A). Soon after 1300 the leaves become considerably more open (B), form which continued until about 1450. From that date until the end of the series in 1533 the pendants take the form shown in No. C; the leaf has opened out and become more geometric; its top elements are curved back to form circles touching the body of the lys.

The sequence of "flowers" is as follows: The earliest form (PLATE XVIII, α) is a wide W-shaped unopened bud, with globules at each of the three top points. This form occurs from 1252 to about 1380. The next form (β) is a more fully opened but pinched or withered bud, with the two globules at either side often completely separated from the bud, and the center globule omitted. This form was in use from about 1380 to about 1410. The next form (γ) shows the bud in transition to a leaf, with the three globules again in evidence, all only slightly separated from the leaf. This form was followed from 1410 to 1450, after which the leaf form became more pronounced, with an additional globule or stop appearing, at the beginning of the second large florin, on either side between the flowers or leaves and the initial cross and final A of the legend, (δ). In the final form, which occurs between 1500 and 1533 (ε) the flower is a five pointed leaf, entirely separated from the globules to either side, but retaining the additional globules or stops at beginning and end of the legend.

8 Numismatic Notes

*The Reverse Inscription.*

The name of the patron saint of Florence is the unvarying inscription throughout the whole series of florins; the spelling, however, exhibits several changes. Except for a very few cases, which may be classed as misspellings, the earliest florins (1252-1450) have the inscription S.IOHA—NNES.B; the latest (1450-1533) the inscription S.IOAN—NES.B. In an intermediate period (1450-1485) the spelling S.IOHAN—NES.B frequently occurs, but never to the exclusion of the other spellings, often on pieces of the same year.

*The Lettering of the Florins.*

The style of lettering (for both obverse and reverse) changes in the early years of the second large florin from a thick, squat Gothic to a slender Roman design. This shows most clearly in the letter A, which in the earlier florins is **A**; in the earliest of the second large florins it passes through the transitional forms **A** and **A**, and becomes a completely romanized **A** in the last forty years of the series. These changes in the form of the letter A are shown in the terminal A of FLORENTIA in PLATE XVIII.

*Guide to the Use of Design Details in Dating.*

The chart on p. 107 displays all the details which have been discussed, in chronological form. Since these changes in design rarely start or conclude at the same dates, it results that any particular combination delimits the possible date of a piece within a fairly narrow period. Examples of the use of the chart are furnished by the pieces shown in PLATES XVI, XIX, and XX which heretofore could not be accurately assigned.

# DATING OF FLORINS

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	1300	1400	1500
Small Florins 20 mm.			
1st—Fringed cloak			
2nd—Plain cloak			
Large Florins 22 mm.			
1st—Plain cloak			
2nd—Goat skin			
Gothic lettering			
Transitional			
Roman lettering			
Obverse pendant design			
A			
B			
C			
Obverse flower design			
α			
β			
γ			
δ			
ε			
Reverse inscription			
S. IOHA-NNES B			
S. IOHAN-NES B			
S. IOAN-NES B			

CHRONOLOGICAL CHART OF DESIGN DETAILS

8\*

*Description of the Plates*

All coins illustrated have been enlarged to 1½ diameters. The pieces illustrated are from the collections of the American Numismatic Society (ANS), Herbert E. Ives (HEI), and A. Carson Simpson (ACS).

PLATE XVI — *Identical Mintmarks in Different Major Periods.*

1. First small florin. 1400. 2d. semester, Orsini, p. 141.  
Antonio Alessandri. Mintmark: Double-headed lamb. HEI
2. Second small florin. 1409. 2d. semester. Orsini, p. 155.  
Antonio Alessandri. Mintmark: Double-headed lamb. ACS
3. First large florin. 1434. 2d. semester. Orsini, p. 192.  
Bartolomeo Alessandri. Mintmark: Double-headed lamb. ANS
4. First small florin. 1400. 1st. semester. Orsini, p. 160.  
P. L. Castellani. Mintmark: Castellani monogram. ACS
5. Second small florin. 1413. 1st. semester. Orsini, p. 160.  
P. L. Castellani. Mintmark: Castellani monogram. ANS
6. Second small florin. 1411. 1st. semester. Orsini, p. 157.  
Niccolo da Uzzano. Mintmark: Shield with bars and stars. HEI
7. First large florin. 1430. 1st semester.  
Niccolo da Uzzano. Mintmark: Shield with bars and stars. HEI
8. First large florin. 1440. 1st. semester. Orsini, p. 199.  
Niccolo Valori. Mintmark: Valori arms. HEI
9. Second large florin. 1473. 2d. semester. Orsini, p. 242.  
Francesco Valori. Mintmark: Valori arms. ANS

PLATE XIX — *Identical Mintmarks within Same Major Periods.*

10. First large florin. 1435. 2d. semester. Orsini, p. 193.  
Simone Canigiani. Mintmark: Canigiani shield surmounted by S.  
Orsini gives this mintmark for both 1435, 2d. semester and 1450, 1st. semester, for the same mintmaster. This piece from the Vienna Catalogue is assigned to 1435 because of the reverse inscription IOHA and the B, γ obverse design. Vienna Catalogue
11. First large florin. 1450. 1st. semester. Orsini, p. 211.  
Simone Canigiani. Mintmark: Canigiani shield surmounted by S.

This piece is assigned to 1450 because of the reverse inscription IOHAN and the c, δ obverse design. ANS

12. Second large florin. 1481. 1st. semester. Orsini, p. 248. Antonio Canigiani. Mintmark: Canigiani arms surmounted by A.

Orsini gives this mintmark for 1481, 1st. semester, Antonio Domini Canigiani, and for 1496, 2d., and 1503, 2d., Antonio Simone Canigiani. It is here ascribed to 1481, 1st., because of the IOHAN inscription, the c, δ obverse design, and the transitional lettering. ANS

13. Second large florin. 1527. 1st. semester. Orsini, p. 308. Jacopo Gianfigliuzzi. Mintmark: Shield with rampant lion, surmounted by I.

Orsini gives this mintmark for 1485, 2d., Jacopo Acciaiole, and 1527, 1st., Jacopo Gianfigliuzzi. It is here ascribed to 1527, 1st., because of the IOAN inscription, the c, ε obverse, and the Roman lettering. ANS

PLATE XX — *Attribution of "Unknowns"*

14. *C.N.I.*, Pl. XVI, no. 49, listed as unknown mintmaster in period of small florin. Mintmark: Six-lobed open rose with sunburst above.

Unlike the majority of the "unknowns" in the first small florin period which have the A, α obverse design, this piece has the A, β design, which places it in the period 1380–1410. The mintmark appears to be that improperly represented in Orsini by the drawing reproduced to the right. The piece is accordingly attributed to Ciriaco Benci, 1383, 1st. semester, Orsini, p. 122. HEI

15. *C.N.I.*, Pl. XIX, no. 10, listed as unknown mintmark in period of second large florin. Mintmark: Double-headed lamb (Alessandri) and anchor (ancora).

This piece has the inscription IOHAN, the C, δ obverse design and transitional lettering. The piece is accordingly attributed to Antonio Alessandri, 1475, 2d. semester, Orsini, p. 243. This date is represented in *C.N.I.* only by a reference to Orsini, who did not have the piece in his collection, and gave the mintmark as Alessandri shield, surmounted by A, as shown by his drawing reproduced at the right. HEI

16. Mintmark: Shield with wedge shaped bars, surmounted by  $\text{f}_2$ . Not in *C.N.I.* or Orsini.

From the C,  $\delta$ - $\epsilon$  obverse, the Roman lettering, and the IOAN reverse inscription, this piece must be placed near 1500 in date. It is here attributed to Filipozzo Gualtierotti, mintmaster for part of 1503 II. The same mintmaster had a full term in 1517, 2d., but the obverse design by then was established as definitely c,  $\epsilon$ . Neither *C.N.I.* nor Orsini had pieces of this mintmaster. Orsini, p. 280, represents his mintmark by the drawing shown to the right. HEI

17. Mintmark: Thorn surmounted by S.

C,  $\epsilon$  obverse design, Roman lettering, IOAN reverse inscription. This mintmark was used by the Spini family alternatively with a shield with wavy horizontal bars. The only Spini mintmaster in the period of the second large florin was Scolaio Spini, 1505, 2d. semester, to whom this piece is accordingly ascribed. Orsini, p. 283, gives the mintmark as the Spini shield surmounted by S as shown in his drawing reproduced to the right. Orsini did not have this piece, and *C.N.I.* cites only Orsini and a piece with "Stemma Spini" in the Florentine Museum. HEI

HERBERT E. IVES



## THE MINT OFFICIALS OF THE FLORENTINE FLORIN

### I. INTRODUCTION

#### *The Florin*

The fiorino d'oro, or gold florin, of Florence was the first medieval gold coin to be accepted generally over the whole of Europe. The silver florin, which preceded it by seventy years, was basically similar in design, but is not discussed here, the word "florin" being used herein to refer to the true Florentine gold florin. So, also, after it became the custom to have separate mintmasters for gold and silver, only the former are considered, except where otherwise indicated.

The florin was first coined in January, 1252, when the Florentine Republic was attaining a commanding position in art, letters, banking and trade. Its appearance coincided almost exactly with the fall of the Hohenstaufen Dynasty of the Empire and with the beginning of the decline of Ghibelline influence in Florentine affairs. It saw the rise and fall of the House of Luxembourg and the troubled period when a succession of other families managed to seat one or two representatives on the imperial throne. It came to an end after the Habsburgs had established themselves as titular heads of the Empire.

In Florentine history, the florin shared the fortunes of the Republic, for it was supplanted by the scudo d'oro in 1533, one year after Alessandro dei Medici became Duke of Florence. Some authorities say that it was last coined in 1529 or 1530,<sup>1</sup>

<sup>1</sup> Federico Schweitzer, in "Delle imitazioni del fiorino d'oro di Firenze, parte I", published in his *Notizie peregrine di numismatica, decade IV*, Trieste, 1859, refers at p. 9 to the "famous siege of 1529, epoch when the coinage of the florin ceased."

Francesco Vettori, in *Il Fiorino d'Oro antico illustrato*, Florence, 1738, speaks of the coinage as ending in 1529 (p. 239) and in 1530 (p. 240).

but certain florins extant in collections can only be attributed to the years 1529–1532.

During the years of its coinage, minor changes were made in its size and design, but, despite the frequent debasement of the moneys of other states, it remained always of fine gold. The obverse invariably bore the heraldic lily of Florence and the name: FLOR-ENTIA, and the reverse the standing figure of St. John the Baptist and some variant of the legend: S. IOHANNES B.<sup>2</sup>

It may be objected that gold “florins” were coined by the Medici in later years, with a similar design. These, however, were not Florentine, but Tuscan, coins, for they were struck by the Medici, as Grand Dukes of Tuscany, for use throughout their domain. Indeed, most, if not all, of them were products of the Pisa mint. The style of these later coins, too, was much more refined and sophisticated, whereas the original florin, despite its minor changes, always kept that rough simplicity and strength of design which is associated with “primitives” in art.

The popularity of the florin in other countries was so great that its design, with appropriate changes in the obverse legend, was copied contemporaneously over most of continental western Europe — curiously enough, less in Italy than elsewhere. Even an emperor and a pope followed the fashion, which reached its northernmost outpost in the Free City of Lübeck. These “imitations” have received considerable study.<sup>3</sup>

<sup>2</sup> The variances in design are discussed and illustrated in the article of Dr. Herbert E. Ives: “The Design of Florentine Florins as an Aid to their Dating,” in this number of *Museum Notes*. It is hereinafter referred to as “Dr. Ives.”

<sup>3</sup> Cf. Hermann Dannenberg: “Die Goldgulden Florentiner Gepräge” in *Numismatische Zeitschrift*, Bd. 12, pp. 146–85 (1880) and supplement thereto in Bd. 17, pp. 130–32 (1885); Raymond Serrure: “Le florin de Florence et ses imitations” in *Bulletin de Numismatique*, t. V, livre 2, pp. 18–22 (1898); Anton Engel & Raymond Serrure: *Traité de numismatique du Moyen Age*, Paris, 1905, t. III, pp. 1437–40; Victor Tournour: “Le florin au type florentin dans les principautés belges” in *Revue Belge de Numismatique*, t. 78, pp. 129–34 (1926); also works cited in notes 1, 4 and 7.

There have also been slavish copies — even to the FLORENTIA on the obverse — which can only be classed as counterfeits, especially as some of them were struck in a debased alloy. Perhaps the supreme tribute came when the rival city of Venice — which prided itself on setting the style, rather than following it — adopted the weight and fineness of the florin, though not the design, for its own zecchino.

Despite the research on the imitations, the prototype which was so widely copied — the Florentine florin itself — has received less attention. This is particularly unfortunate, since even a nodding acquaintance with Florentine history will demonstrate that the florin not only shared the fortunes of the Republic, but also mirrored its story. The names of the mintmasters and other mint officials show the constant seesawing of the factions into which Florence persisted in dividing itself, such as Guelph and Ghibelline, and “bianchi” and “neri.” It is possible to trace in them the incidence of each new provisional government (*balía*), of which there were many, some changing radically the frame of government of the city-state.

The names of the officials of the mint also reflect the varying fortunes of the different kinds of nobles — the original noble families, those who were ennobled by miscellaneous foreign rulers who temporarily controlled the city or to whom they rendered special services, and those given that rank by “The People of Florence.” Some nobles, too, renounced their rank, to secure the benefits of certain public offices or the pecuniary advantages of engaging in trade; others, without such a renunciation, were granted those privileges by “The People.” Reflected also are the varying degrees of influence of the greater and lesser guilds (*arte*) and of the ordinary people.

The procession of these names witnesses, as well, the fluctuations in power and authority of the great families, some

noble, some not. So the Medici rose from a plain but good family to be rich merchants and eventually nobles. Others, once powerful, vanished permanently from the life of the city, usually by reason of proscription; this was particularly common among Ghibelline adherents. Still others suffered periods of temporary eclipse; thus the Peruzzi, bankrupted by Edward Third's repudiation of the debt he contracted for the conventional purpose of fighting the French, are mentioned only once between 1326 and 1406. One even finds names associated with the New World, as Vespucci and da Verrazzano, and others of world renown in statesmanship, literature and architecture, including Machiavelli, Boccaccio and Cambi (di Cambio).

Perhaps the complication of the subject has discouraged extensive research on the florin, for it exists with well over five hundred mintmarks. In general type, however, it is divided into two classes, the earlier *fiorino stretto* (narrow) and the *fiorino largo* (broad), due to an increase in its diameter in 1422. Again by reason of a change in the Saint's inner vestments in 1459, the *fiorino largo* falls into two classes.

As pointed out by Dr. Ives, the *fiorino stretto* should also be subdivided. During most of this period, the earlier type prevailed, but an obvious change in the styling of the Saint's cloak was made about 1410. At the same time another unreported change was made: the crosstaff carried by the Saint assumed a position much nearer to the vertical. As the result of these stylistic modifications, what we may call the second *fiorino stretto* and the first *fiorino largo* are substantially similar, except in size. There is at least one transition piece, in which the staff takes the later position while the cloak-edge is of the earlier type.

These classes of the florin, together with variations in the reverse legend and in the style of the letters, as well as other

periodic modifications of parts of the design, permit the allocation of a particular specimen to a period, sometimes of a number of years in length. More precise attribution requires a study of the mintmasters and their mintmarks, for which the literature on the subject — unfortunately by no means satisfactory — must be consulted.

### *The Libro di Zecca*

No mint records were kept in the early years of the florin. In 1316, however, the *Libro di Zecca* was established. It was found possible to fill in the desired data as far back as 1303, and for two earlier terms of office (except as to the mintmarks of the latter). When the *Libro di Zecca* was instituted, seventy-two mintmarks of the 1252–1302 period were known and were illustrated in it, by way of preface, but all knowledge of the mintmasters to whom they appertained, and of their terms of office, had been lost. Later research disclosed the names of two sets of officials for the year 1300, disposing of one of these mintmarks, but a number of additional ones for the fiorino stretto are now to be found in collections; some of them undoubtedly belong in this early period.

A typical entry in the *Libro di Zecca* gives the date, both by Christian year and indiction and year, the names of the mintmaster (or mintmasters) and other major mint officials, their dates of service, a reference to the denominations and quantities of coins struck during the period, and a description and illustration of the mintmarks, as well as a drawing of the heraldic lily which appears on the obverse. Unfortunately, these entries are often incomplete, and there are sometimes gaps of a year or more in the record, due, no doubt, to periods of war or civic tumult or to epidemics of disease such as the Great Plague of 1348, which halved the population of the city

and is well described by Boccaccio in the *Decamerone*. It is not known whether the operation of the mint was suspended at these times; probably it was, on several such occasions, from what history has to tell us of the gravity of these emergencies.

Caution must be exercised, too, because of mistakes in the *Libro di Zecca*. Sometimes these involve the omission of the full name of the mintmaster, or the names of the mintmasters for gold and for minor coins may be transposed. Again, the mintmarks for gold and silver may be reversed, or the mintmark may be illustrated with the wrong initial over it, or the like. These mistakes are particularly frequent in the period of the fiorino stretto. Although it is the basic source material, a complete and accurate presentation cannot be found in the *Libro di Zecca* alone.

#### *Later Authorities*

The original *Libro di Zecca*, of course, is available only to those who visit Florence. Fortunately, however, it was incorporated in Orsini's book of almost two centuries ago,<sup>4</sup> which reproduces the original text with, as Orsini says, all the "rozza e difettosa latinità di quei tempi." He omits only the drawings showing the configuration of the heraldic lily for each mintmaster's term, but adds an introduction discussing the various kinds of coins of the Republic, with their changes in value, etc. Particularly helpful are his three indexes and a chapter on the foreign imitations of the florin. Most important of all is the fact that Orsini was himself a numismatist, which enabled him to correct several errors and to supply deficiencies in the *Libro di Zecca*, from coins in his own collection. An asterisk in the margin indicates that Orsini had the coin in

<sup>4</sup> Ignazio Orsini: *Storia delle Monete della Repubblica Fiorentina*, Florence, 1760, hereinafter referred to as "Orsini."

question. Everything considered, Orsini is the most useful single reference work now available.

Somewhat earlier is Vettori,<sup>5</sup> but it is of little value to the collector seeking to attribute a particular coin. It is primarily a general history of the florin, with liberal quotations from contemporary documents and decrees, and a lengthy discussion of the papal imitations. Much of the information it contains is summarized in Orsini's introduction.

Shortly after the publication of Orsini, however, came a useful reference work, incorporating reproductions of all the florins in the imperial collection at Vienna.<sup>6</sup> It did not purport, of course, to be a comprehensive treatise on the florin and is not free of error, but is valuable both because of its illustrations and because it corrects certain mistakes in the *Libro di Zecca* not detected by Orsini.

Next in point of time is Joseph's account of the coins in the Bretzenheim hoard.<sup>7</sup> He, too, corrected errors in the *Libro di Zecca*, but made several fresh mistakes of his own, due to misreading the text. It is limited in time to 1390, when the coins were buried, but contains very helpful and exact drawings of the mintmarks of the florins in the hoard, free of the embellishments and inaccuracies which often characterize the reproductions of the mintmarks in Orsini, particularly when he reproduced illustrations from the *Libro di Zecca* without having specimens in his own collection to check them for accuracy.

The most extensive series of descriptions of florins is found

<sup>5</sup> Op. cit. note 1.

<sup>6</sup> Valentin Jameray Duval & Erasmus Froelich: *Supplement au Catalogue des Monnoies en Or qui composent une des différentes parties du Cabinet Impérial*, Vienna, 1769, hereinafter referred to as "Monnoies."

<sup>7</sup> Paul Joseph: *Historisch-kritische Beschreibung des Bretzenheimer Goldguldensfundes*, Mainz, 1883, hereinafter referred to as "Joseph;" it was also printed contemporaneously in *Zeitschrift des Vereins zur Erforschung der rheinischen Geschichte und Alterthümer*, Bd. III, pp. 179-272.

in the *Corpus Nummorum Italicorum*<sup>8</sup> published at the instance of the late King Victor Emmanuel III of Italy. This work describes not only the coins in his own magnificent collection, but also those in many other large accumulations, public and private, in Italy and elsewhere. It is essentially a catalog, however, and only rarely endeavors to resolve the problems which have arisen; it makes some such contributions, however. Unfortunately, identical descriptions are often given under different dates; the coins themselves may show variances, but they are not pointed out. Again, no attempt is made to indicate which of the many coins described are counterfeits; some undoubtedly are. Others, almost certainly, are patterns, but this is not indicated.

Much of the strength and weakness of the *C. N. I.* lies in its illustrations, which, while not entirely satisfactory, are generally sufficient for purposes of identification; unfortunately, there are too few of them to form the basis for a detailed and extensive study. Most of the unattributed florins are illustrated, but very few of those which bear recognized mintmarks have been reproduced, even though there is a variance between the form of mintmark shown in Orsini and that on the coin itself; the text, however, often notes such variances. Again, the illustrations generally show only the reverse of the coin, which prevents their use as an aid in studying the changes in detail of the obverse design.

The florins in a few of the large collections have been described or illustrated in published works,<sup>9</sup> but periodical literature on the florin is scanty. Occasionally sales catalogs are of assistance, but caution must be exercised in accepting their attributions. Indeed, there are errors — particularly in

<sup>8</sup> *Corpus Nummorum Italicorum*, t. XII (Toscana-Firenze), Rome, 1930, hereinafter referred to as "*C. N. I.*"

<sup>9</sup> Giuseppe Castellani: *Catalogo della raccolta numismatica Papadopoli-Aldobrandini*, Venice, 1925, t. I, pp. 325-38 (descriptions only); also Monnoies.



the names of the mintmasters — in every one of the works mentioned above.

### *The Mintmarks*

Sometime during the first fifty years of the florin, it was coined with no distinguishing mark whatever; presumably this was its earliest form. Thereafter, mintmarks were always used except during the first semestre of 1412. For that period, the *Libro di Zecca* first refers to the coinage of florins with mintmarks and then adds:<sup>10</sup> *Et insuper facti fuerunt Floreni ad solitam ligam, & pondus, & sine alio Signo*. It may be noted that this is during the period of transition from the first to the second fiorino stretto.

The mintmarks of the florin apparently started with a simple dot or group of dots, but gradually assumed a pictorial character, at first as more or less arbitrary symbols; letters or monograms were occasionally used. The next step was to adopt designs appropriate to the families of the mintmasters; it may be of assistance to mention several of these:

Capponi, a capon (cappone),  
Castellani, a castle (castello),  
Martelli, crossed hammers (martelli),  
Peruzzi, a pear (pera),  
Ricci, a hedgehog (riccio),  
Rondinelli, a swallow (rondine, rondinella),  
Spini, a thorn (spina), and  
Tanagli, tongs (tanaglie).

In the later years of the florin, it became customary to use the arms (generally, but not always, in an escutcheon) of the mintmaster, perhaps with the addition of a distinguishing initial or other mark, when several members of the same family held that office or when the same mintmaster served

<sup>10</sup> Orsini, p. 159.

several terms at different times. Here a knowledge of Florentine heraldry is particularly helpful. It is valuable, too, in the case of some of the earlier pictorial mintmarks, when, as not infrequently occurred, the mintmaster chose as his symbol some distinguishing element of his arms. Again, it helps in correcting errors in the *Libro di Zecca*, where, for example, the names of the mintmasters for gold and silver are transposed.

It may be noted that the form of arms shown in one of Orsini's illustrations frequently bears less resemblance to the actual mintmark than does the description of those arms in a work on heraldry.<sup>11</sup> The reverse is true in other cases, especially where augmentations are involved, e. g., the Canigiani arms with added tiara and crossed keys in chief. A description of the arms often clarifies the illustration in Orsini, for the Florentines did not adhere to the strict rules of modern heraldry, especially that forbidding superimposing a metal on a metal or a color on a color. Since the tinctures cannot be reproduced in their actual colors on a coin, and the mintmark is too small to permit the invariable use of the conventional shadings for them, the correct choice between two similar arms sometimes turns on which part of the design is in relief; the illustration cannot show this, but the description will indicate it.

Although Orsini illustrates most of the mintmarks, one of his drawings may differ in other ways from the mintmark itself, especially when he did not have the particular coin in his collection. Sometimes distinguishing letters, dots and other marks are omitted. Again, the marginal illustration may depict, say, the rampant wolf of the Altoviti in an escutcheon, while the coin itself shows the wolf without the shield. Orsini pictures all shields as having rounded tops, while in fact they

<sup>11</sup> Cf. J. B. Rietstap: *Armorial général*, 2d. edit., Gouda, 1884 and supplements; Howel Wills: *Florentine Heraldry*, London, n. d. (ca. 1900).

are sometimes circular, flat-topped or even of that hexagonal combination of arcs and straight lines seen on decorative tablets on many Florentine buildings. Other variances also occur. The text or illustrations of *C. N. I.* often indicate these differences.

### *The Mintmasters*

There is little information as to the administration of the mint during the first fifty years of the florin, though Orsini mentions the tradition that Lamberto dell'Antella was the first mintmaster. We know, however, that there were two mintmasters, serving jointly for six-month terms, in 1280–81 and 1287–88. The six-month period of tenure (semestre) accords with the almost invariable later practice, although the dates on which those terms of office began changed from time to time. In later years, too, there was generally only one mintmaster for the gold coinage, the second being charged with that in silver and the base metals. Sometimes, however, two were appointed for the florin, perhaps serving for overlapping terms.

In general, therefore, the mintmasters changed every six months, bringing about a corresponding change in mintmarks. Many of them served several terms — two men as many as five — and apparently different mintmarks were used for each such term, although all the problems thus presented have not yet been solved. As time went on, the mintmasters tended to be chosen from a few families; the Alberti furnished fourteen for gold alone. This resulted from the fact that the mintmasters for the florin came to be selected by the Arte di Calimala (guild of dressers of foreign cloth) and those for silver and base coinage by the Arte di Cambio. In practice, these guilds almost invariably gave the office to their own

members. Some family names appear in both, but most in one group only.

In view of the foregoing, it is believed that an alphabetical list of gold mintmasters, with their respective terms of service, will be a useful tool in connection with future studies of the florin. Thus, if the arms or symbol of a particular family appear on a coin, perhaps with a letter or other sign, reference to the list will facilitate attribution, by showing the various possibilities. Of course, since the mint records are incomplete, it follows that the list must also be, but it is believed to be as accurate and comprehensive as the source material permits. It has been divided into three parts for convenience, there being separate indexes for the fiorino stretto and for the first and second fiorino largo. Lacking more information as to the exact date when the fiorino stretto changed its design, it seems unwise to attempt to divide that index into two parts.

The six-month terms of office (*semestre*) are indicated by Roman numerals; since they never started at the beginning of a calendar year, *semestre II* of a given year invariably ended in the following year. During the whole of the period in which florins were struck, the New Year commenced in March, after the vernal equinox, and not on January 1. Indictions began in September, on varying dates before the autumnal equinox.

Although the *Libro di Zecca* (and hence Orsini) generally gives the names of the mintmasters in Latin — or sometimes one name in Italian and the others in Latin, etc. — the Italian form has been adopted here. Differences in the same surname, encountered in *C. N. I.* — as where dell'Antella is sometimes rendered Antellesi — are avoided, and errors in spelling are corrected. Another type of apparent variance is not such in fact; it arises from the medieval Italian custom (especially prevalent in Florence) of using freely what we today would consider to be nicknames. For example, Bindo was used for

Ildebrando, Gianni for Giovanni, Lapo for Iacopo, and Masio or Maso for Tommaso. Only one of these forms is used in the index, except where it is clear that two separate persons are involved, as with Iacopo and Lapo del Giudice; in such cases, the distinction made in the *Libro di Zecca* is adopted.

It should be noted that the same source work generally gives the Christian name in the nominative case; sometimes it is double, as Giovanni Battista. Occasionally two names are telescoped into one, e.g. Pierfrancesco for Pietro Francesco and Gianfrancesco for Giovanni Francesco; in such cases the index adopts Orsini's form. Next in order are one or more middle names in the genitive singular, and finally the surname in the plural, usually preceded by "de." The first middle name, following the custom of the period, is the Christian name of the mintmaster's father; a second middle name, if one is given, is generally that of his grandfather. While this practice is often helpful in distinguishing two members of a family who have the same Christian name, it is felt that middle names are unnecessary for an index, except where such a distinction must be made; there the father's name is given in parenthesis, if known, or roman numerals are used.

Although it may not be strictly relevant to the subject of mint officials, it is believed that the usefulness of the tables will be increased by adding certain information contained in Orsini. A single asterisk (\*) after a particular year and semestre indicates that Orsini definitely states that florins were struck during that period. Where a double asterisk (\*\*) is used, his text either describes or refers to the mintmark. Recognizing that many of the entries may have been written up by the notary in charge before the end of the semestre, and hence that changes of mintmasters may have gone unrecorded in some cases, a triple asterisk (\*\*\*) is employed to show that a particular entry is apparently complete, either because it

9\*

refers to a change in mint officials or because the number (or weight) of florins struck during that period is stated.

### *The Engravers*

One other official of the Florentine mint is important to the student of the florin. This is the engraver, for, as the incumbents of that office change, we may look for at least minor changes in the design of the coin. Unfortunately, both the early and late entries in the *Libro di Zecca* omit mention of the names of the engraver. However, from 1368 through 1459, that information is generally given, and is tabulated at the end of this paper. Dr. Ives refers to its importance in connection with the change from the first to the second fiorino stretto.

Generally speaking, there was only one engraver at a time, though there are periods when two were appointed. It seems reasonable to assume, since the designation "goldsmith" is often appended to the name, that all dies used were engraved by him (or them). This is borne out by the title usually accorded to him: *Intagliatore ferrorum et coniarum cum quibus cuditur moneta auri et argenti*. A further confirmation that one man could readily engrave all the necessary dies is furnished by the statistics as to the number of coins struck, where these are available. In some semestre, upwards of 30,000 florins were coined, but this was exceptional.

In the light of what we know as to the wearing qualities of the dies used at that time, and keeping in mind the softness of the fine gold in which the florin was struck, some estimate of the number of dies needed can be made. A broad field of study is open here, from the specimens in collections. Unfortunately, there are few duplications of coins of particular semestre in the larger collections in this country, so a study of those in Europe will be necessary. It can be stated,

however, that at least three different dies were used, in some cases.

## II. MINTMASTERS OF THE FIORINO STRETTO

### *General Comments*

Since there is no mint record available for most of the first fifty years of the florin, we cannot be certain to what extent mintmasters served jointly during that time. We know, however, that in 1280 II, 1286 II and 1300 I and II there were always two at a time, as continued to be the case from 1303 II to 1306 II inclusive, after which it became customary to appoint one mintmaster for the gold coinage and another for silver and base metals. This plan was followed through the balance of the period of the fiorino stretto. Replacements by reason of death, etc., were of course made when required, but the substitutes served only for the balance of the unexpired term.

For the same reason, particulars as to their terms of tenure are unknown for the early period. So far as information is available, it appears that six-month terms were almost invariable for the time of the fiorino stretto. Only one case is known in which a mintmaster served two successive terms — Dardano Acciaiuoli in 1317 II and 1318 I.

The 1280 II semestre ran from Nov. 8 to May 8, and 1286 II from Nov. 9 to May 9. When we next have definite information, it appears that semestre II began on Nov. 15 and semestre I on May 15; this dating was followed from 1303 II through 1314 II. Here a brief period of irregularity follows. 1315 I is stated as for six months, beginning May 15, which would put its end at Nov. 15; it may have lasted longer, since the six months of 1315 II did not begin until Dec. 1. The semestre 1316 I ran from June 1 to Dec. 1, when 1316 II began; the latter term, however, is stated as being of *five* months, which

would bring its end to May 1. Apparently it was for *four* months only, since 1317 I and II were semestres starting on April 1 and October 1, respectively.

1318 I ran for *seven* months, from April 1 to Nov. 1, then the regular six-month terms were resumed. Beginning with 1318 II and continuing through 1377 II, semestre I began on May 1 and II on Nov. 1. At this point there is a gap of several years in the *Libro di Zecca*. When it resumes, 1380 II runs from Nov. 5 to May 5 and 1381 I from May 5 to Nov. 5, and so on through 1386 II. Semestre 1387 I must have lasted an extra day, for 1387 II began on Nov. 6. In 1388 the respective semestre commenced on Apr. 6 and Nov. 6.

At the end of 1388 II there was apparently a three-week period during which the mint did not operate, for the *Libro di Zecca* has a marginal note<sup>12</sup> to the effect that the date of beginning the next term of office was changed *propter deficientiam burse pro Arte Kallismale*. From May 28, 1389, on, through the balance of the period of the fiorino stretto (1421 II), the semestre regularly began on May 28 and Nov. 28, respectively.

Attention should be called to the fact that the *Libro di Zecca* apparently shows *three* terms each for the years 1305 and 1306, immediately before one mintmaster was assigned for gold and another for silver coinage. Examination shows, however, that the terms of the gold mintmasters were unchanged, and that the "third terms" were those of mintmasters for the "nove Monete Argentea" — the silver popolino — first coined in 1305.

It remains to note the lacunae in the index. As already mentioned, the names of the mintmasters are unknown from the origin of the florin in January, 1252, through semestre 1303 I, except for 1280 II, 1286 II and 1300 I and II. In addition, no mintmasters are known for the following terms, because of gaps or incomplete entries in the *Libro di Zecca*:

<sup>12</sup> Orsini, p. 128.



1312 I	1364 II
1340 I	1365 II
1343 II	1366 II
1346 I	1367 II
1348 I – 50 I	1368 II
1351 I – 52 I	1370 II
1353 I	1371 II
1354 I, II	1372 II
1362 II	1373 II
1363 II	1378 I – 80 I

A brief reference to the events in Florentine history during these years is significant. In 1312, the Emperor Henry of Luxembourg besieged the city. 1340 was a year of plague, famine and uprisings. Duke Walter of Athens was compelled to surrender his overlordship, as a result of three simultaneous conspiracies in 1343; famine and an uprising of the nobles followed. The Great Plague began in 1348, and the war with Giovanni Visconti, Archbishop of Milan, in 1351. In 1353 commenced the quarrels between the Ricci and the Albizzi, joined by their partisans, so that the whole city rose in arms. 1362–4 saw a war with Pisa and others, and 1370 the beginning of one with the Papal Legate at Bologna, which lasted for several years. For three years beginning in 1378 there was constant civic tumult; it started with a Guelph plot to seize control of the government, followed by the revolt of the lower orders under Michele Landi, and turned into a state of anarchy, with constant rioting between the artisans and the great traders and merchants.

When the coincidence of these events with the gaps in the record of mintmasters is considered, it seems a fair inference that the mint was not in operation during most of these periods. Again, the regularity of the pattern, showing the omission of semestre II for all the years but one from 1362

through 1373, suggests that the mint was regularly closed down for half of each year during that time. As a result, it is submitted that the list of mintmasters for the fiorino stretto is probably almost complete from 1303 II through the balance of the period of its coinage.

## INDEX I

Acciaioli, Dardano	1317 II **
„	1318 I **
Alberti, Antonio	1389 I **
„	1402 I **
Bartolomeo	1350 II **
„	1366 I **
„	1373 I **
Benedetto	1376 II **
Bernardo	part 1359 II ***
Bindo <sup>13</sup>	1384 II **
Caroccio	1336 I **
Cipriano	1370 I ***
Duccio	1329 II **
„	1334 I *
Iacopo	1331 I **
Marco	1387 I ***
„	1392 II **
Niccolò (Lippo)	1369 I **
<i>See also</i> del Giudice	
Albizzi, Antonio <sup>14</sup>	1331 II **
„	part 1335 I ***

<sup>13</sup> Erroneously listed in Joseph and *Monnoies* as Benedetto Alberti. Bindo is a shortened form of Ildebrando.

<sup>14</sup> For 1331 II, Orsini gives only "Antonius Landi" and lists it in his index of unknown families, but names "Antonius Landi de Albicis" for 1335 I. In view of the custom at that time to refer to public figures without using their surnames, it is submitted that only one person is involved here.

Filippo	1325 I	**
Francesco	1368 I	**
Giano	1323 II	**
<i>See also del Bene</i>		
Aldobrandi, <i>see</i> Infangati		
Aldobrandini, Rosso	1332 II	**
Alessandri, Antonio I	1400 II	**
„	1409 II	**
Altoviti, Stoldo	1388 II	***
„	1391 I	**
Amadori, Andrea <sup>15</sup>	1360 II	**
Benozzo	1408 I	**
Francesco	1337 II	***
d'Andrea, Andrea <sup>16</sup>	1311 II	**
Angiolieri, <i>see</i> Tanagli		
Angiolini, <i>see</i> Machiavelli		
Anselmi, Palla <sup>17</sup>	1315 I	**
dell'Antella, Donato	1305 I	**
„	1311 I	**
„	1327 I	**
Giovanni (Lamberto)	1304 I	**
„	1307 II	**
Arrighi, Recco <sup>18</sup>	1300 I	***

<sup>15</sup> Named by Orsini as "Andrea olim Benozii," but indexed by him under both Amadori and Benozzi. Note that there is a "Benozio Andree Benozii," that is, Benozzo the son of Andrea Benozii, in 1408 I, to which entry Orsini himself adds "(degl'Amadori)." There was no armigerous family of Benozzi, while the Amadori had arms.

<sup>16</sup> Given by Orsini as "Andreas Andree." There is no d'Andrea in the armory, except from other countries than Italy; presumably, therefore it means Andrea the son of Andrea. The mintmark is a door or solid gate; quere whether he was of the Portinari, whose arms bear a gateway. The same Andrea used the related mintmark of a key, when he was mintmaster for silver in 1309 I.

<sup>17</sup> The listing follows Orsini's indexing under Anselmi, rather than the original entry of "Anselmus Palle." There was also, however, a della Palla family, but the Anselmi seem preferable, especially since the crossed-trumpet mintmark forms a saltire, which was part of the Anselmi arms as far back as 1302.

<sup>18</sup> Although Orsini lists this in his unknown family index, the Arrighi were armigerous.

Baldesi, Baldese	1353 II **
Banchi, Bartolo	1416 I **
Bandini, Vanni	1332 I **
Baroncelli, Gherardo	1306 II **
Tano	1308 I **
„	1313 II **
„	1321 I **
„	1324 II **
Bartolini, Francesco	1360 I **
Beccanugi, Leonardo	1396 II *
Benci, Ciriaco	1383 I **
Bencivenni, Iacopo	1355 II **
del Bene, Lapaccio	part 1335 I ***
Senuccio <sup>19</sup>	1300 II ***
Benozzi, <i>see</i> Amadori	
Benvenuti, Bartolo	1356 II
Biliotti, Giovannozzo	1397 II *
Sandro	1339 I **
Bini, Piero	part 1372 I
Boccaccio, Neri <sup>20</sup>	1341 I **
Paolo	1337 I **
Bonaiuti, <i>see</i> Lorini	
Bonifatii, <i>see</i> Gini	
Bucelli, Giovanni	1421 I **
Buonacorsi, Giovanni	1325 II **
Lapo	1326 II **
Buonfantini, Feo	1308 II **
 Cambi, Neri	 1304 II **

*C. N. I.* prefers "di Lapo," but gives no reason for choosing the middle name from "Reccus Lapi Arrighi." Further, Lapo is a short form of Iacopo.

<sup>19</sup> Although Orsini lists him as "Senuccius Albizi del Bene," and the del Bene were a recognized arms-bearing family, *C. N. I.* prefers Albizzi.

<sup>20</sup> Alternatively Beccuccio or Boccuccio.

Cambi, Stefano	1329 I	**
Campi, <i>see</i> Falconetti		
Canigiani, Antonio (Iacopo)	1413 II	**
Dato	1309 I	**
Capponi, Andrea <sup>21</sup>	1365 I	**
Cappone (Recco)	1342 I	**
Cardinali, <i>see</i> Tornaquinci		
Castellani, Lotto	1394 I	**
„	1408 II	**
„	1412 I	**
Matteo	part 1395 I	***
„	1415 I	
„	1420 I	**
Michele <sup>22</sup>	1377 II	**
Pierozzo	1385 II	*
„	1400 I	**
„	1413 I	*
„	1417 II	**
Stefano	1402 II	**
Vanni	1388 I	*
„	1391 II	*
„	1401 II	**
„	1410 I	**
„	1418 II	**
Cedernelli, Scolaio <sup>23</sup>	1330 I	**

<sup>21</sup> Orsini gives "Orlando Ghelardi [indexed as Gherardi] pro Arte Kallismale, & Andrea Capponis pro Arte Cambii." The capon mintmark on the florin, however, and the "O over tun" on the silver show the entries were transposed.

<sup>22</sup> "Michaele Vannis Ser Lotti" in Orsini, who, however, indexes it as Michaele Vanni Castellani in his index. *C. N. I.* and Joseph list it under Lotti (an obscure family), apparently deceived by the contemporary practice of referring to important people as Ser (Messer) So-and-so, using his Christian name only. The mintmark is appropriate to the Castellani.

<sup>23</sup> Orsini lists "Tanus Chiarissimi" before "Scolaus de Cedernellis;" however, the citron (cedro) mintmark on the florin (used by him on silver in 1335 I) shows the error.

Cenni, <i>see</i> Rucellai	
Chiarissimi, Maffeo	1322 I **
Tano	1334 I *
<i>See also</i> Cedernelli	
Cioni, Cecco	1358 I **
Colt....., Vanni <sup>24</sup>	1300 I ***
Covoni, Bernardo	1362 I ***
Bettino	part 1363 I ***
”	1375 I *
Giovanni	1339 II **
<i>See also</i> Petriboni	
Datucci, Neri	1303 II **
Dietisalvi, <i>see</i> Neroni	
Dini, <i>see</i> Tinghi	
Falconetti, Francesco <sup>25</sup>	1361 I
Falconieri, Guidone <sup>26</sup>	1280 II
Fastelli, <i>see</i> Petriboni	
Filipozzii, <i>see</i> Soldani	
Filippi, <i>see</i> Tanagli	
Gentili, Gherardo	1316 II **
Gherardi, Simone	1305 I **
<i>See also</i> Capponi	
Gherardini, <i>see</i> Gianni	

<sup>24</sup> The surname is incomplete in Orsini.

<sup>25</sup> Orsini's entry places "Ubal dini Fastelli de Petribuonis Campsoris pro Arte Campsorum" before "Francisci Falconetti pro Arte Kallismale." Although no mintmarks are shown, there is no reason to refuse to give controlling weight to the guild references. *C. N. I.* lists this under Campi, evidently assuming that "Campsoris" is a surname rather than a statement of his business; no such family is in the armory.

<sup>26</sup> Orsini lists this as 1281 but, since the semestre ended on May 8 of that year, it obviously began in 1180 and hence is properly 1280 II.

Ghini, Lapo	1306 I **
„	1310 I **
„	1315 II **
„	1321 II **
Giacomi, <i>see</i> del Giudice	
Gianni, Bonaccorso <sup>27</sup>	1374 I **
Gherardino	1326 I **
„	1328 I **
Niccolò <sup>28</sup>	1357 I **
Gigli, <i>see</i> Gilii	
Gilii, Bindo <sup>29</sup>	1381 I *
<i>See also</i> Tinghi	
Gini, Francesco <sup>30</sup>	1357 II **
„ <sup>31</sup>	1369 II **
del Giudice, Alberto <sup>32</sup>	1310 II **
Iacopo	1320 II **
Lapo <sup>33</sup>	1309 II **
„	1312 II **
„	1316 I **

<sup>27</sup> “Bonaccorso Lapi Iohannis” in Orsini, indexed by him under the translated surname Gianni. This family is well-known in Florentine history, but *C. N. I.* prefers Lapi; see note 18 as to this.

<sup>28</sup> From “Nicolay Gherardini Ianis” in Orsini, Joseph takes Gherardini for the surname; Orsini correctly indexes it under Gianni.

<sup>29</sup> *C. N. I.* spells it Gigli, though Gilii is the recognized form for the armigerous family.

<sup>30</sup> Orsini lists “Naddi Manni” for gold and “Francisci Bonifatii” for silver, indexing the latter as “Francisci Bonifatii Gini.” The wings mintmark of the florin appears in the Gini arms, but not in those of the Manni.

<sup>31</sup> Orsini again transposes the names of the mintmasters as in note 30, listing “Symone Raynerii de Peruzzis” for gold and “Francisco Bonifatii” (Gini) for silver. The mintmark of the florin is a monogram of the latter. Joseph fails to note the fact that Gini is the proper surname.

<sup>32</sup> This family is a branch of the Alberti, and is sometimes referred to as Alberti del Giudice.

<sup>33</sup> For 1309 II, Orsini gives only “Lapus Domini Iacobi;” Joseph lists it under Iacobi and *C. N. I.* as di Giacomo. For the 1312 II and 1316 I terms, there is also the surname “del Giudice” or “del Iudice,” adding “(Famiglia degli Alberti)” and indexing all three semestres under Alberti, as to which see note 32.

del Guidice, Neri	1314 I **
„	1319 I **
Giuseppi, Coppo <sup>34</sup>	1286 II
Guidetti, Guidetto	1399 I *
„	1409 I **
„	1420 II **
Tommaso	1381 II *
Iacopi, <i>see</i> del Giudice	
Infangati, Catellino <sup>35</sup>	1318 II **
Landi, <i>see</i> Albizzi	
Lanfredini, Gherardo	1323 I **
Lapi, <i>see</i> Arrighi, Gini <i>and</i> Tanagli	
Lippi, Neri <sup>36</sup>	1347 II **
Lorini, Filippo <sup>37</sup>	1406 I **
Lotti, <i>see</i> Castellani	
Machiavelli, Boninsegna <sup>38</sup>	1303 II **
„	1320 I **
Manelli, Tedicio <sup>39</sup>	1280 II

<sup>34</sup> Orsini dates this as 1287, but the term began Nov. 9, 1286, so is properly 1286 II.

<sup>35</sup> Here Orsini again omits the surname, giving only "Catellinus Aldobrandi," which is taken for the surname by Joseph and *C. N. I.* Orsini, however, indexes it as "Castellinus Infangati."

<sup>36</sup> The original entry reads "Neri Lippi" but, because the mintmark is a chess rook, *Monnoies* and Joseph add the surname Rocco (rook). This gratuitous addition is, to say the least, doubtful, since at least four other Florentine families (Anchioni, Frescobaldi, Solosmei and Venturi) used rooks in their arms. It is to be noted that, during the same semestre, the mintmarks for the grossi and quattrini bore no relation to the name or arms of the mintmaster for silver. The Lippi bore arms.

<sup>37</sup> Listed as "Philippo Lorini Bonaiuti," which form is adopted by *C. N. I.* Orsini lists it under Lorini, whose arms contain the distinctive mountain with lilies mintmark; the Bonaiuti arms are quite different.

<sup>38</sup> For 1303 II, Orsini gives "Boninsegna Angiolini de Machiavellis," but omits the surname in 1320 I, causing *C. N. I.* and Joseph to list it under "Angiolini." Although no help can be had from the mintmarks, it is probable that only one person is involved.

<sup>39</sup> See note 26 as to the date.



Manetti, Vanni <sup>40</sup>	1338 II **
„	1358 II *
Manni, <i>see</i> Gini	
Manovelli, Tedicio <sup>41</sup>	1286 II
„	1304 II **
„	1306 II **
Martelli, Ugolino	1382 II *
„	1389 II *
Medici, <i>see</i> Soderini	
Nardi, <i>see</i> Rucellai	
Nardini, <i>see</i> Rucellai	
Nasi, Iacopo	1385 I **
„	1393 I **
„	1404 II **
„	1414 I **
Neroni, Nerone <sup>42</sup>	1347 I **
Nigio (Dietisalvi) <sup>43</sup>	1307 I **
Nigio (Nigio) <sup>44</sup>	1386 I *
„	1401 I **
Niccoli, Lapo	1333 II *
„	1343 I **
Nigi, <i>see</i> Neroni	

<sup>40</sup> The original entry is misdated 1339.

<sup>41</sup> The first name is given variously as “Ticio,” “Tedicio” and “Fedicio;” the first is a diminutive of the second, and the third is presumably a misprint. See also note 34 as to the date.

<sup>42</sup> Orsini misdates 1347 as 1346.

<sup>43</sup> The surname is omitted by Orsini, but he indexes it under Neroni. *C. N. I.* lists the mintmaster as “Nigi Dietisalvi,” but no such family is known to Florentine heraldry.

<sup>44</sup> Listed for 1386 I as “Nigio Neronis” and for 1401 I as “Nigio Neronis Nigii,” causing *C. N. I.* to adopt Nigi as the surname for the second term. Orsini indexes both under Neroni. No Nigi family is known. Possibly, in view of the added “Nigii” for 1401, a father and son are involved, but, in the absence of other evidence and since the terms are only 15 years apart, a single individual is presumed.

Pallarcioni, Bonaccorso	1345 I **
Gianni	1361 II **
Palle, <i>see</i> Anselmi	
Peruzzi, Giovanni	1406 II **
"	1419 II **
Rinaldo	1412 II **
Rodolfo	1421 II **
Tommaso	1319 II **
<i>See also</i> Gini	
Petriboni, Ubaldino <sup>45</sup>	1344 II **
<i>See also</i> Falconetti	
 Rangi, <i>see</i> Raugi	
Raugi, Banco <sup>46</sup>	1305 II **
Ricci, Ricciardo	1324 I **
Ruggiero	1333 I **
Ugoccione	1356 I **
Ricoveri, Niccolò	1383 II *
"	1392 I *
Vanni	part 1399 II ***
Ridolfi, Baldo	1304 I **
Rocchi, Francesco	part 1359 II ***
<i>See also</i> Lippi	
Rondinelli, Ghino	1336 II **
Paolo	1375 II **
Rucellai, Naddo <sup>47</sup>	1328 II **

<sup>45</sup> Orsini gives "Giovanni Guaschi de Covonibus" for gold and "Ubaldini Fastelli de Petribuonis" for silver. The mintmark of the florin, a bundle of sticks (*fastello*) demonstrates that the names are transposed. *Monnoies* adopts the name "Ubaldino Fastelli," neglecting the surname completely; there is no Fastelli family in the armory.

<sup>46</sup> *C. N. I.* makes the surname "di Rangio;" no such family is known.

<sup>47</sup> The original entry is "Naddus Cennis;" Orsini indexes it under "Cenne Rucellai," which seems preferable to Joseph's "Cenni" as the surname. The two notes immediately following reinforce this conclusion.

Rucellai, Naddo <sup>48</sup>	1335 II **
Niccolò <sup>49</sup>	1352 II **
Soderini, Giovanni (Niccolò)	1418 I **
Giovanni (Stefano)	1338 I **
Niccolò (Geri) <sup>50</sup>	1377 I *
Tommaso (Guccio)	1382 I **
”	1394 II **
Soldani, Lippo	1340 II **
”	1346 II **
Niccolò <sup>51</sup>	1367 I **
Soldo	1390 II *
Tommaso	part 1363 I ***
”	part 1372 I
Spinelli, Lorenzo	1376 I **
”	1386 II *
Spini, Scolaiò (Nepo)	part 1395 I ***
”	part 1399 II ***
”	1407 II **
Strozzi, Carlo	1359 I **
Donino, <i>see</i> Pazzino Strozzi	
Francesco	1415 II **

<sup>48</sup> Orsini gives “Naddus Cennis Nardi,” and indexes it as in note 47. *C. N. I.* and *Monnoies* adopt Nardi as the surname, while Joseph prefers Nardini (not an armigerous family). Since the terms are close together, it is submitted only one person is involved, and that he is Naddo, the son of the Cenne Nardi who was the mintmaster for silver in 1324 II.

<sup>49</sup> Named as “Nicholao quondam Domini Bencivennis Nardi de Oricellariis” in Orsini. This at once ties these three entries into the Rucellai family and states the common ancestor as Cenni (short for Bencivenni) Nardi Rucellai.

<sup>50</sup> Orsini names Soderini for gold and says of the mintmark only that it is “*novo Signo*”; he continues with Verio Medici for silver, describing that mintmark as *unius Scuti cum sex pallis in dicto Scuto* (the Medici arms), & *cum uno V supra dictum Scutum*, and illustrating it opposite the description. Joseph assumes Verio Medici to be the mintmaster of the florin; unfortunately for his view, the Medici arms are known on the silver, but not on the florin of this period.

<sup>51</sup> Again Joseph errs in assuming that the non-armigerous surname Filipozzii is appropriate for “Ser Nicholao olim Ser Filipozzii Soldani.”

Strozzi, Lapo	1305 II **
„	1314 II **
Marco	1398 I *
„	1404 I *
Nofrio	1410 II **
Palla (Palla)	1407 I **
Pazzino	1355 I **
„ <sup>52</sup>	1364 I **
„	1384 I **
„	1395 II *
Rosso	1419 I **
Salomone	1416 II **
Strozza	1397 I *
Tanagli, Aldobrandino	1330 II **
„ <sup>53</sup>	1341 II **
„ <sup>54</sup>	1342 II **
„	1345 II **
Tedaldi, Totto	1313 I **
„	1317 I **
„	1322 II **
Terchini, Niccolò	1393 II *
Tinghi, Lippo <sup>55</sup>	1371 I **

<sup>52</sup> For 1364 I, Orsini gives "Donino Pazino Milite de Strozzi," which seems to be merely a misspelling of "Domino Pazino" used for the next two terms. *C. N. I.* and Joseph, however, assume the Christian name is "Donnino."

<sup>53</sup> *C. N. I.* lists this under the surname Lapi, despite the original entry of "Aldobrandini Lapi Tanaglie."

<sup>54</sup> In Orsini "Philippi Lippi de Angiolierii pro Arte Campsorum" precedes "Aldobrandini Lapi Tanaglie pro Arte Kallismale." Despite this clear statement that Tanagli is mintmaster for gold, *C. N. I.* adopts "Filippo Angiolieri" and *Monnoies* and Joseph reverse the same two names. The mintmark S is not particularly appropriate to any of the three names, but at least bears more resemblance to tongs (tanaglie) than to the hawk's bells of the Angiolieri or the buffalo head of the Filippi.

<sup>55</sup> Only "Lippo olim Dini" is given in 1371 I, but "Lippo olim Dini Tinghy" for 1374 II. Although *C. N. I.* and Joseph accept Dini as the surname for the earlier term, it is submitted that only one person is involved in both semestres.

Tinghi, Lippo <sup>56</sup>	1374 II **
Tolosini, Anastasio	1344 I **
Tornabuoni, Francesco	1405 I **
Tornaquinci, Geri <sup>57</sup>	1300 II ***
„	1306 I **
Ubaladini, see Ubertini	
Ubertini, Gregorio	1387 II *
Ubaldo	1398 II *
„	1403 I **
„ <sup>58</sup>	1411 II *
da Uzzano, Niccolò	1396 I *
„	1403 II **
„	1411 I **
„	1417 I **
da Verrazzano, Amerigo	1390 I *
Bernardo	1405 II **
Vettori, Neri	1414 II **
Villani, Giovanni	1327 II **
Villanuzzi, Mario	1380 II **

<sup>56</sup> Joseph allocates this term to Bindo Lapi Gilii, despite the clear entry referred to in note 55. He misreads the original text, which, after naming the mintmasters, continues: *Bindo Lapi Gilii pro dicta Arte Kallismale pro primus tribus mensibus dicti eorum* [the mintmasters'] *Offit.* [et] *Ugone Dominici de Vecchiattis pro dicta Arte Cambii pro ultimis tribus mensibus Offitii ipsorum Camerariis, & Capseriis . . . .* Gilii had already served as “Camerario, & Capserio” during the last three months of the immediately preceding semestre, his term being for six months.

<sup>57</sup> Listed as “Teri Cardinalis” in 1300 II and “Gerius Cardinalis” for 1306 I; these references may be assumed to refer to one person. The latter is indexed by Orsini under Tornaquinci, the former as of unknown family; *C. N. I.* retains the Cardinali form. Either would seem to be justified, since the Cardinali were a branch of the older Tornaquinci family; apparently, however, the division was not as clearly marked as that of the del Giudice from the Alberti.

<sup>58</sup> For some unspecified reason, *Monnoies* adopts the surname Ubaladini here, in the face of an original entry of “Ubaldo Fetti de Ubertinis.”

## III. MINTMASTERS OF THE FIRST FIORINO LARGO

*General Comments*

This period is generally considered to begin with 1422 I. Some florins of this type, however, may have been struck during 1421 II, since the change from the fiorino stretto was made by the ordinance of May 6, 1422<sup>59</sup> and the semestre did not end until May 28. Although the intervening time is short, this possibility may account for the coin in *C. N. I.*<sup>60</sup> with the mintmark "pear with two leaves surmounted by crown," since no other Peruzzi is listed for the first fiorino largo.

The transition to the second fiorino largo marked the end of the period. This occurred during semestre 1459 I,<sup>61</sup> though the exact date is in question. Until recently, it was apparently assumed that all coins struck during that term were of the second type, but *C. N. I.* lists one of the first,<sup>62</sup> so the semestre is included in this part of the index of mintmasters. If anything, it may be questioned whether florins of the second type (other than patterns) were coined at that time; those generally so attributed may have come from Tommaso Ridolfi's 1474 I term.

For this period, the record of mintmasters is complete on its face, since no semestre is omitted in the *Libro di Zecca*; it is not certain, however, that unlisted changes were not made during some of the terms. In any event, there was only one mintmaster for gold at a time, and they served for six-month terms. From the start through 1434 I, the semestre began on May 28 and Nov. 28, respectively. From 1434 II to the end, semestre I started on Sept. 1 and II on Mar. 1.

<sup>59</sup> Orsini, p. XXI.

<sup>60</sup> *C. N. I.* t. XII, p. 149, no. 157.

<sup>61</sup> Orsini, p. 221.

<sup>62</sup> *C. N. I.*, t. XII, p. 150, no. 1.

Between these two groups lies a period (Nov. 28 to Mar. 1) to which no specific reference is made; perhaps the mint was inoperative, or it may be that a temporary mintmaster was appointed. It is unlikely that the 1434 I mintmaster held over, since the entry in the *Libro di Zecca* is explicit that his term was for six months beginning May 28. It may be noted that this entry was not completed until after the end of the term, for it specifies the number of florins coined during it, yet does not refer to any extension.

## INDEX 2

Acciaioli, Simone	1444 I ***
Alamanni, Andrea	1456 I
Alberti, Francesco	1454 I
Aldobrandini, Luigi	1432 I ***
Alessandri, Bartolomeo	1434 II
Altoviti, Giovanni (Simone Tommaso)	1424 I **
"      "      "	1434 I ***
"      "      "	1441 I
Sandro	1428 I **
"	1432 II ***
dell'Antella, Taddeo	1442 II ***
 Bagnesi, Cristofano	 1431 II ***
Beccanugi, Piero	1437 I
"	1452 II
Boninsegni, Domenico	1433 I ***
" <sup>63</sup>	1437 II ***
"	1450 II

<sup>63</sup> Again without giving any reason, *Monnoies* lists this mintmaster as Domenico di Leonardo; the original entry is "Dominicus Leonardi Boninsegne."

Canigiani, Antonio (Iacopo)	1427 I ***
Daniele	1436 II ***
Giovanni	1444 II
„	1448 II
Simone	1435 II **
„	1450 I
Castellani, Matteo	1428 II **
Cerretani, Niccolò	1449 II
Chiarucci, Baldassare <sup>64</sup>	1441 II
da Diacceto, Carlo	part 1447 II
Gherardini, <i>see</i> Gianni	
Gianni, Astorre <sup>65</sup>	1439 I
Giovanni	1443 I **
Guidetti, Francesco	1449 I ***
Leonardi, <i>see</i> Boninsegni	
Machiavelli, Guidone	part 1447 II
Manovelli, Niccolò	1425 II ***
Martelli, Domenico	1451 I ***
Ugolino (Niccolò)	1443 II *
„        „	part 1446 II
„        „	1453 I
Medici, Piero	1445 I **
„	1455 I
Nasi, Giovanni	part 1451 II
Lutozio (Iacopo)	part 1430 I ***

<sup>64</sup> The text reads only "Baldassare Antonii Santis," but Orsini indexes the mintmaster under "Baldassar Chiarucci."

<sup>65</sup> *C. N. I.* incorrectly lists him as Astorre Gherardini, despite the original entry of "Astore Niccolai Gherardini Iannis" and the mintmark of the Gianni arms in the margin.



Nasi, Lutozio (Iacopo)	1436 I **
” ”	1454 II
Niccolò	1456 II
Pazzi, Andrea	1430 II ***
”	1438 II
Antonio (Andrea)	1448 I ***
Peruzzi, Rodolfo <sup>66</sup>	[1421 II] **
Quaratesi, Castello	1442 I ***
”	1455 II
”	1458 II
Rabatta, Antonio <sup>67</sup>	1427 II **
Ridolfi, Lorenzo	1422 I *
”	1440 II ***
Luigi	1457 I
Tommaso	1459 I
Santis, <i>see</i> Chiarucci	
Serristori, Niccolò	1453 II
da Sommaia, Guccio	1429 II **
Spinelli, Bartolomeo	1435 I
”	1446 I ***
Spini, Matteo	1423 II **
Nepo	1426 I **
Strozzi, Marcello	1422 II **
”	1431 I
”	part 1446 II
Palla (Nofrio)	1426 II **
Salomone	1429 I ***

<sup>66</sup> This term is tentatively included in brackets, for reasons given in the “General Comments” at the head of this part of the Index.

<sup>67</sup> *Monnoies* adds “dei Doggiali” to the surname.

Tanagli, Guglielmo	1439 II ***
Tedaldi, Bartolo (Bartolo)	1438 I ***
"          "	part 1451 II
Tedaldo	1452 I
Tornabuoni, Filippo	1458 I
Francesco	1425 I **
Ubertini, Antonio	1423 I **
da Uzzano, Niccolò	part 1430 I ***
Valori, Niccolò (Bartolomeo Taldo)	1424 II **
"          "	1440 I
Venturi, Giovanni	1445 II
"	1457 II
Vettori, Angelo	1447 I ***
Neri	1433 II ***

## IV. MINTMASTERS OF THE SECOND FIORINO LARGO

*General Comments*

As already mentioned,<sup>68</sup> this period is generally considered to begin with semestre 1459 I, but it is questionable whether the coinage of the second fiorino largo actually started before 1459 II. It is sometimes said that it continued through 1533 I, although Orsini refers only to the striking of gold scudi at that time; indeed, his last definite statement that florins were coined refers to 1531 II. However, *C. N. I.* attributes certain florins to 1532 I and II and it is difficult to find any other place to put them, unless we assume, without any corroborative evidence, that the apparently complete record of this period in the *Libro di Zecca* is defective.

<sup>68</sup> Cf. "General Comments" to part III.

Only one mintmaster for gold served at a time during most of this period. However, two were appointed for 1509 I, II, 1510 I, II, 1517 II and 1518 I. Again, there were two in office at once from June 1, 1521 to June 1, 1523, as a result of appointing one new mintmaster each quarter, to serve for six months; the terms which begin on these irregular dates (i.e., those other than the start of a regular semestre) are indicated by arabic numerals, one for each quarter. Otherwise, service was for six-month periods beginning Sept. 1 and Mar. 1, except as indicated in the next paragraph.

The period June 1, 1524–June 1, 1527 is difficult to rationalize. The ordinance of June 3, 1524<sup>69</sup> contemplates that, during those three years, there should always be two mintmasters for gold in office at the same time. Apparently, they were to be appointed for *annual* terms, the additional ones beginning on June 1 of each year and the regular ones on Sept. 1. In general, the entries in the *Libro di Zecca* bear this out, but some of them appear to be inconsistent with this scheme, as well as inconsistent among themselves. It seems wisest to follow the terms of the ordinance in such a manner as to accept as many as possible of the entries in the *Libro di Zecca*. The irregular semestres are indicated by capital letters, one for each such semestre.

## INDEX 3

Acciaiuoli, Angelo	1494 I *
Bernardo	1532 I
Giovanni	1512 II *
Iacopo	1485 II ***
Lodovico (Averardo) <sup>70</sup>	1467 I

<sup>69</sup> Orsini, pp. 304–06.

<sup>70</sup> Averardo (Italian) corresponds to Adovardus (Latin).

Acciaiuoli, Lodovico (Angelo)	1521 II *
Neri	1507 I *
Piero	1468 I
Zanobi	1524 A/B ***
Alamanni, Alessandro	1508 II *
Luigi	1488 I ***
Pietro	1479 II ***
„	1516 I *
Alberti, Niccolò (Antonio)	1505 I *
Piero	1478 I ***
Alessandri, Antonio II	1475 II
Benedetto <sup>71</sup>	1464 II
Altoviti, Giovanni (Simone)	1510 II ***
„	1523 II *
dell'Antella, Filippo	1485 I ***
Giovanni (Taddeo)	1466 II
„	1469 I
„	
Bardi, Migiotto	1528 I *
Biliotti, Agostino	1478 II ***
Alessandro	1529 II *
Zanobi	1477 I *
„	1491 I ***
Boninsegni, Bindaccio	1487 I ***
Giovanni Battista	1497 I *
Buondelmonti, Antonio	1500 II *
Bartolomeo	1509 I *
Canigiani, Antonio (Giovanni)	1481 I
Antonio (Simone)	1490 I ***
„	1496 II *
„	part 1503 II ***
„	

<sup>71</sup> *Monnoies* erroneously gives the surname as "Bartolomeo;" this was in fact his father's name.

Canigiani, Averardo	1501 I *
„	1509 I *
Bernardo	1495 I *
Carlo	1498 II *
Francesco	1514 II *
„	1526 A/B *
Capponi, Bernardo	1471 I
„	1490 II ***
Cappone (Gino)	1495 II
Donato	1518 I *
Filippo	1521 1/2 *
Francesco (Luca)	1529 I ***
Francesco (Niccolò)	1486 I ***
„ „	1517 I *
Giuliano	1525 A/B *
Castellani, Niccolò	1530 I *
Cerretani, Iacopo	1482 I ***
Matteo	1499 I *
„	1517 II *
Niccolò	1470 I
Paolo	1506 II *
„	1519 II *
Corsi, Lorenzo	1463 I
„	1472 I
„	1496 I *
da Diacceto, Antonio	1508 I *
Carlo	1467 II
„	1484 II ***
Francesco	1518 II *
Lorenzo	1513 II *
„	1527 II *
Paolo	1493 I ***

da Diacceto, Paolo	1497 II *
Gianfigliazzi, Buongianni	part 1530 II ***
Gherardo	1522 I/2 *
Iacopo	1527 I *
Ginori, Carlo	1511 II *
Giovanni Battista	1532 II
Tommaso	1514 I *
Giugni, Domenico	part 1528 II ***
Gualtierotti, Filippo <sup>72</sup>	part 1503 II ***
”	1517 II *
Piero	1491 II ***
”	1507 II *
Guicciardini, Iacopo	1522 II *
Guidetti, Bastiano	1501 II ***
Girolamo	1515 I *
Lorenzo	1494 II *
”	1504 I ***
Machiavelli, Francesco	1512 I *
Piero	1484 I ***
Magalotti, Guidone	1531 I ***
Martelli, Alessandro	1524 I/II ***
Antonio	1463 II ***
Domenico	1460 I
”	1469 II
Francesco	1493 II ***
”	1526 I/II *
Ilarione	1502 II ***
”	1515 II *

<sup>72</sup> Orsini gives “Philippus Laurentii de Gualterottis” for 1503 II and “Filippo<sup>72</sup> Laurentii de Gualterottis” for 1517 II. Despite the fact that the second is not “Filippo,” it seems obvious that the same individual is meant, and it is likely that the error was in the translation into Latin.

## MINT OFFICIALS OF THE FLORIN

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Martelli, Niccolò	1492 I	***
Ugolino (Niccolò)	1466 I	***
"        "	1483 I	***
Montebuoni, Antonio	1476 I	
Nasi, Agostino	1489 I	***
Alessandro	1506 I	*
"	part 1510 I	***
Bernardo	1487 II	***
Francesco	1486 II	***
Lutozio (Battista)	1511 I	***
"        "	1518 I.	*
Lutozio (Piero)	1519 I	*
Piero	1465 I	
Roberto	1521 I	*
Neri, <i>see</i> Vettori		
Nerli, Francesco	1510 I	***
Masio	1525 I/II	*
Tanao	1473 I	
Pandolfini, Battista	1500 I	*
Pazzi, Antonio (Geri)	part 1530 II	***
Antonio (Guglielmo)	1520 I	*
Guglielmo	1475 I	
Niccolò	1510 II	***
Renato	1476 II	*
Peruzzi, Bindaccio	1498 I	*
Pitti, Giovannozzo	1461 II	
"	1471 II	
Raffaele	1516 II	*
Ridolfi, Giovanni Battista	1488 II	***
"        "	part 1510 I	***

Ridolfi, Niccolò	1482 II ***
Tommaso <sup>73</sup>	[1459 I]
„	1474 I
Serristori, Niccolò	1462 I
Soderini, Giovanni (Vittorio)	1509 II *
Girolamo	part 1528 II ***
Niccolò (Lorenzo)	1461 I
„	1465 II
Tommaso (Lorenzo)	1459 II
„	part 1481 II ***
Spinelli, Cristoforo	1483 II ***
Giovanni	1504 II ***
„	1513 I *
„	1522 I *
Spini, Scolaio (Angelo)	1505 II *
della Stufa, Giovenco	1479 I ***
Tedaldi, Bartolo (Bartolo)	1464 I
Bartolo (Leonardo)	1522 3/4 *
Lattanzio	1509 II *
Tornabuoni, Giovanni <sup>74</sup>	1480 II ***
„	1492 II ***
Leonardo	1477 II
„	1489 II ***
Tosinghi, Pietro <sup>75</sup>	1480 I ***
„	1499 II *
Ranieri	1502 I *

<sup>73</sup> This term is given in brackets, since it is doubtful whether florins of this type were struck then (see "General Comments" to Part III).

<sup>74</sup> *C. N. I.* uses the contracted form Gianfrancesco for Giovanni Francesco.

<sup>75</sup> Or Pierfrancesco for Pietro Francesco.



Ubertini, Amerigo	1472 II
Ugolini, Antonio <sup>76</sup>	[1533 I]
Giorgio	1474 II
Luca	1520 II *
Niccolò	1503 I ***
Valori, Francesco	1473 II
Niccolò (Bartolomeo)	1523 I *
Vettori, Angelo	1470 II
„	part 1481 II ***
Bernardo	1521 3/4 *
Francesco	1460 II
Giovanni	1531 II ***
Lorenzo <sup>77</sup>	1462 II
„	1468 II

## V. ENGRAVERS

*General Comments*

In view of the small number of engravers during the ninety-year period for which their names are given in the *Libro di Zecca*, it is believed that a chronological table will be more useful than an index. Where the original entry does not show the name of an engraver, this fact appears either in the table itself or in the footnotes.

Unfortunately, the surnames of the engravers are rarely given, as is generally the case when the *Libro di Zecca* refers to minor officials of the mint. As a result, there are several places in which there appear different methods of stating what is

<sup>76</sup> Included in brackets because of the possibility that hitherto unreported florins may have been struck during this term (see "General Comments" to Part IV).

<sup>77</sup> Monnoies lists the mintmaster as Lorenzo Neri, whereas Orsini gives the full "Laurentio Nerii Angeli de Vectoris."

probably the same name; this possibility should be borne in mind when using the table. Minor variations in spelling are disregarded.

## TABLE

1368 I	Betto Geri & Niccolò Pazzini
1370 I	Betto Geri
1371 I	Leonardo olim Ser Giovanni
1374 I, II	Niccolò Pazzini & Piero Gori
1375 I - 1377 II	Niccolò Pazzini
1380 II - 1405 II	Piero Gori <sup>78</sup>
1406 I	Piero Gori & Niccolò Fedis
1406 II	Niccolò Fedis
1407 I - 1408 II	Piero Gori
1409 I	Piero Gori & Giovanni Giorgi
1410 I	Michelozzo . . . . . <sup>79</sup>
1411 I	Michelozzo Borgognonis
1412 I	Giovanni Giorgi
1412 II	Giovanni Giorgi & Michelozzo Bartolomei
1413 I - 1432 I	Michelozzo Bartolomei <sup>80</sup>
1432 II - 1434 I	Michelozzo Bartolomei & Tommaso Niccoli Scarlattini
1435 I - 1437 I	Michelozzo Bartolomei
1437 II - 1439 II	Tommaso Niccoli Scarlattini <sup>81</sup>
1440 I, II	Michelozzo Bartolomei

<sup>78</sup> During this period, no engraver's name is given for 1381 II, 1393 I, 1394 I, 1395 I, 1397 I, 1399 I and 1400 I.

<sup>79</sup> Only the Christian name appears in the original entry. It seems fair to assume that this engraver is the same one as is later designated "Michelozzo Borgognonis" (a reference to Burgundy) and as "Michelozzo Bartolomei."

<sup>80</sup> No engraver's name is given for 1415 I.

<sup>81</sup> The original entries give "Masio" (short for Tommaso) and omit his name in 1438 II and 1439 I.

- 1441 I Michelozzo Bartolomei & Tommaso Niccoli  
Scarlattini
- 1441 II-1447 II Michelozzo Bartolomei <sup>82</sup>
- 1448 I -1449 I Bernardo Bartolomei Cenni<sup>83</sup>
- 1451 II-1452 II Bernardo Bartolomei Cenni & Tommaso  
Niccoli Scarlattini
- 1453 II-1454 I Bernardo Bartolomei Cenni
- 1454 II Bernardo Bartolomei Cenni & Tommaso  
Niccoli Scarlattini
- 1455 I -1459 II Bernardo Bartolomei Cenni<sup>84</sup>.

A. CARSON SIMPSON

<sup>82</sup> No engraver's name appears for 1442 II and 1443 II.

<sup>83</sup> This name appears in several entries as "Bernardo Bartolomei" only, elsewhere the "Cenni" is added; apparently the same person is meant.

<sup>84</sup> The engraver's name is omitted in 1455 II, 1456 I, II, 1457 I and 1458 II.



## SOME ADDITIONAL COINS OF EAST FRISIA IN THE COLLECTION OF THE AMERICAN NUMISMATIC SOCIETY

(SEE PLATES XXI-XXII)

In *Museum Notes III* (1948) all varieties of coins of East Frisia then in the cabinet of The American Numismatic Society were listed, insofar as they belonged to the period of the rule of the House of Cirksena over the whole territory. In the meantime the Society has been fortunate enough to acquire additional coins of East Frisia of the same period. These are here published so as to continue the collection of material towards a future monograph on the coins of East Frisia.

The method of description follows the same system as in the original listing. Coins corresponding exactly to specimens described in Knyphausen, (*Münz- und Medaillen-Kabinet des Grafen Karl zu Inn- und Knyphausen*, Hannover 1872) are designated by their numbers in that work preceded by the letter K. In cases where the coins vary in legend, abbreviation or interpunctuation from those described in Knyphausen only the number of the general type is given, again preceded by the letter K but followed by the legend in full.

A special reference must be made to the taler of 1564. It obviously exists in quite a number of both obverse and reverse dies, and the listing in Knyphausen is insufficiently complete, systematic or suitable to base the description of other pieces upon. The Museum of the Society has now six pieces of which three have been added since 1948. All of these are different and all vary from the nine pieces listed in Knyphausen and its supplement.

At this time there would be little use to attempt to set up anything resembling a definitive classification scheme of the obverse and reverse dies of the taler of 1564 or their combinations, for it must be assumed that an unknown number of other dies and other combinations exist. The three new specimens are therefore fully described insofar as their legends are concerned as were the three original ones in the preceding listing.

## ENNO II (1528-1540)

1529 Gold Florin, type of K 6353

PLATE XXI, 1

Legend:

Obv. as K 6353

Rev.: IN • DEO • SPRA • N • TIEBO • Q • F A M ✱

## EDZARD II, CHRISTOPH &amp; JOHANN (1540-1566)

1563 Taler, K —.

PLATE XXI, 2

Obv. Helmeted shield with Harpy; helmet dividing date 6-3.

Around: EDZ • CH • IOH • C 3 — 3 ET • D • PHRI • ORI

Rev. Crowned bust of emperor with shouldered sword holding orb in left hand.

Around: • FERD 3 D 3 G 3 RO 3 IMP • S • AVG • GER • HVN • BO • REX •

1564 Taler, type of K 6430

Legend:

Obv.: † MO • EDZ • CR • IO • C • E • D • PH • O • DA • PA • D • I • D • N

Rev.: ✱ FERDI • ROMA • IMPER • SE • AVGVSTVS †

1564 Taler, type of K 6430

Legend

Obv.: † MO • EDZ • CH • IO • C • E • D • PH • O • DA • PA • D • I • DI • N

Rev.: ✱ FERDI • ROMA • IMPERA • SE • AVGVSTVS

1564 Taler, type of K 6430

Legend

Obv.: † MO • EDZ • CH • IO • C • E • D • PH • O • DA • PA • D • I • D • N

Rev.: • • FERDI • ROMA • IMPERA • SE • AVGVSTV ✱

N.D. Taler, type of K 6434

Legend

Obv.: • MO • AR • EDZ • CR • IO : C • E • D • PHRI • ORI ✕

Rev.: • FERDI • ROMA • IMPER • SEM • AVGVST •

### EDZARD II & JOHANN (1566–1591)

1568 Taler, K —.

PLATE XXI, 3

Obv.: Shield with harpy under helmet dividing date 15–68

Around: EDZ : ET : IOH : CO : E : — . DO : PHRISI : ORIE :

Rev.: Crowned double-eagle with orb on breast

Around: DA • PACEM • DOMINE • IN • DIEBVS • NOSTRIS ✕

1569 Taler, K —.

PLATE XXI, 4

Obv.: Shield with harpy under helmet dividing date 15–69

Around: EDZ • E • IO • CO • ET • — ✕ ✕ DO ✕ PHRISI ✕ ORIE

Rev.: Crowned double-eagle with orb on breast

Around: DA • PACEM • DOMINE • IN • DIEBVS • NOSTRIS ✕

1581 Taler, type of K 6443

Legend

Obv.: EDZ + E + IOH + CO + — + E + DO + PHR + O ✕

Rev.: \* DA \* PACE \* DOMINE \* IN \* DIEBVS \* NO \*

1584 Taler, K 9712

1588 Taler, K —.

PLATE XXII, 5

Obv.: Shield with harpy dividing date 8–8, helmet above.

Around EDΣ : E : IO : CO : — . E : DO : PHR . O ✕

Rev.: Crowned double-eagle with orb on breast

Around • DA • PACE • DOMINE • IN • DIEBVS • NOS •

### EDZARD II, alone (1591–1599)

1596 Taler, K 6475.

### ENNO III (1599–1625)

N.D. Medal, K —.

PLATE XXII, 6

Obv.: Count mounted to the right, behind him view of the city of Emden,  
around: DEO + CONFID—NON + TIMEBO—Q3 + FACIAT  
—MIHI + HOMO, the legend separated by the shields of East  
Frisia, Jever, Esens and Wittmund.

Rev.: Peace seated with palm branch and caduceus, behind view of harbor with ships, around: ✠ DA + PACEM + DOMINE + IN + DIEBUS + NOSTRIS

53 mm., 43<sup>08</sup> g.

NOTE: Köhler (*Münzbelustigungen*, vol. XX, p. 201) and Madai (*Taler Cabinett*, No. 4327, vol. III, p. 412) ascribe this piece to Enno II, but in the catalogue of the Schulthess-Rechberg Collection (vol. II, 1, p. 275) it is attributed to Enno III and in my opinion correctly so. The reason given by Köhler is that the obverse legend was the motto of Enno II, but this is not strictly correct. The medal or double taler to which Köhler refers as evidence and which he himself published in the introduction to volume XI (page XV) shows the motto to be IN DEO SPERAVI NON TIMEBO QUID FACIAT MIHI HOMO and the same legend also appears on the gold florins of Enno II. It is thus somewhat different from the obverse legend of the piece under discussion which reads IN DEO CONFID..... Furthermore, the entire fabric very definitely points to the XVII<sup>th</sup> rather than the XVI<sup>th</sup> century. The conclusive evidence for the date, however, is the presence on the coins of the shields of Esens and Wittmund. These two territories, also jointly known as the "Harlinger Land" were not united to East Frisia until the reign of Enno III. They had been inherited by his first wife Walburg from her father, Johann II, the last Count of Rietberg who died in 1564, and she became the sole owner thereof in 1576, after having made arrangements with her sister Irmgard who took Rietberg for her part. Walburg married Enno III in 1581 and died in 1586 leaving two daughters, the younger of which, Agnes, in turn inherited Esens and Wittmund and eventually sold them to her father when she married Count Gundacker of Liechtenstein in 1604. Thereafter they became permanently united with East Frisia, and it is, in fact, not impossible that the



piece was struck on that event. As to the question whether the piece is a coin or a medal I incline to the latter opinion due to the absence of any reference to the issuing authority or its monetary character in the legends. Furthermore the weight does not correspond to the monetary standard prevailing at the time in the Holy Roman Empire.

HERBERT J. ERLANGER



## EUROPEAN ACQUISITIONS OF THE AMERICAN NUMISMATIC SOCIETY

(SEE PLATE XXIII)

During the years 1949 to 1951 The American Numismatic Society's Museum acquired a considerable number of European coins among which are some which are outstanding as being exceptionally rare and previously unpublished. A selection of the most important of these is listed herewith.

*Hanau-Münzenberg. Philip Ludwig II 1580-1612. Quarter  
taler 1604.*

PHIL.LUD.C.HANAU.E.RINNE.D.MINTZE (Philippus Ludovicus Comes Hanau et Rhinec, Dominus Mintzenberg). Crowned oval shield between date.

*Rev.* RUDOLP.II.D.G.ROM.IMP. SEMP. AUG Crowned double eagle. 7 gr.

PLATE XXIII, 1

This quarter taler has been unpublished hitherto. Suchier in his standard work on the coinage of the Counts of Hanau lists only talers and very small fractions as struck under Philip Ludwig II. However, he mentions that in 1874 during the transfer of the Archives to Marburg some 132 old dies had been discovered which were transferred to the Mint in Berlin in 1883. Most of the dies belong to the period of Count Philip Ludwig II. The dies show some wear and must have been used for a very short period only. The reason for their discard cannot be found in the fast deterioration of the dies; one rather suspects that the Count was displeased with the faulty spelling of the county of Rhinec as "RINNE," also he may have recognized that he had been too hasty in introducing the

larger taler fractions. Neither the Probation-Acts in the Frankfurt Archives nor the Currency examination at Worms shows a listing of any quarter talers for Hanau or the neighboring, mint-privileged princes. But the above described quarter taler at least proves that the dies were used, although the attempted introduction of this denomination failed. It is doubtful that these coins ever went into circulation; it is likely that the mint-master Arenburch struck a few as patterns.

*Saxony-Line-Ernestine. Friedrich III the Wise. 1486-1525.*

Arms with four compartments and small center shield within double legend: FRID:DVX:SAXONIE PRINCEPS ELECTOR ET SACRI/ROMA.IMPER. LOCVM TENS.GENE.

*Rev.* Imperial eagle with small shield of Austria and Burgundy on breast. The legend reads MAXIMILIANVS.ROM.REX.SEMPER:AVGVSTVS. Tenzel Plate I, 2. Dassdorf 11. Vogel collection 5940, formerly Erbstein 10458.

PLATE XXIII, 2

This half "Locumtenens" taler without date (1507) commemorates Frederick III's Imperial Governorship. Only three specimens of this interesting coin have survived, one at the Ducal Cabinet at Gotha, the second Vogel specimen in the trade, and the third (formerly in the collection of the Duke Ernst of Saxony-Altenburg) now resting in the American Numismatic Society's collection.

*Breslau. Balthasar von Promnitz, 1539-1562. Ducat 1554.*

St. John standing, facing, star between his feet •MVNVS • CESAR – • – MAXIMILIA (Munus Caesaris Maximiliani Mint Privilege extended by Emperor Maximilian I.)

*Rev.* Shield with five compartments, Bishop's hat above, between 15-54. 1st. compartment: Lillies of the Bishopric of Breslau; 2nd compartment: Silesian eagle; 3rd compartment: White arrow and stars in red field; 4th compartment: Two black ribbons in yellow field, original arms of the Promnitz family; 5th compartment: Two yellow lions in blue field. The last two compart-

ments stand for the duchies of Sorau and Pless which Balthasar, the twenty-third Bishop of Breslau, added to his lands by purchase. •BALTASAR •D •G •  
— • EPISCO • WRATI • (Balthasar Dei Gratia, Episcopus Wratislavicusis  
Balthasar, by the Grace of God, Bishop of Breslau). 22.5 mm. 3.45 grs.

PLATE XXIII, 3

This is a hitherto unrecorded ducat. Friedensburg-Seger, *Schlesiens Münzen und Medaillen der neueren Zeit* records its type (compare numbers 2540–43 with the dates 1552, 1556, 1557 and 1560). The gold used for the coinage of these ducats came from Zuckmantel, a small town in Austrian Silesia, where small quantities of gold had been found in the Qucibug. For the history of the Promnitz family, I recommend Köhler's *Munz-Belustigung* (Part XI, pp. 201–208).

*Erfurt. Lottery Medal. 1700.*

Inscription inviting participation in a lottery for 2000 Taler: "Andere/  
Allgemeine / AVGMENTATIONS / Verlohsung / der Ersten CLASSE / umb /  
Zwo Tausend Thaler / DIR.IOBO LVDOLFO / CASSAE & ASSISTENT / SVB  
NOV / D.I.NOV. / A.MDCC. / with the medallist's initials C.W. at sides.

*Rev.* Quotation from St. Luke VI, 38: "Gebet / so wird / gegeben: / Luc. VI. /  
v. 38." / (Give, and it shall be given on to you). 26 mm. 7.5 gr.

PLATE XXIII, 4

This unrecorded silver medal of Erfurt dated 1700 was designed by the well-known Christian Wermuth, Court medalist at Gotha, by order of the Mayor of Erfurt, Hiob Ludolph, who organized a city lottery for the benefit of the poor. Leitzmann in his *Münzwesen und die Münzen Erfurts* lists three medals pertaining to this lottery which was run in different years (cf. his Nos. 817–1819). The first lottery took place in 1698, the fourth and last in 1702. The medal of 1700 was distributed for the benefit of the second lottery.

*Kur Pfalz. Charles Louis. 1648-1680. Half Ducat.*

Bust to r. CAR. LVD. D. G. C. P. RH. S. R. I. ARCHITH. PR. EL. B. D.  
(Carolus Ludovicus Dei Gratia Comes Palatinus Rheni Sacri Romani Imperii  
Archi Thesaurarius Princeps Elector Elector Bavariae Dux.) Palm leaf.

*Rev.* Arms of the Kur Pfalz. In exergue EX. A. RH.; (Ex Auro Rhenano)  
circular inscription. DOMINVS. PROVIDIBIT. 1674. PLATE XXIII, 5

This piece differs from the half ducat described in Köhlers *Ducaten Cabinet* under number 1152, where the letter I which is present in the obverse legend of the Society's specimen is omitted. The Society's specimen was formerly in the Erbstein Collection (No. 10173) sold at Frankfurt in 1909. It is the first coin minted from gold washed from the sand of the Rhine (cf. Emil Heuser, *Das Rheingold und die Rheingoldmünzen*, Kaiserslautern, 1911).

*Klippe of Cologne, 1683*

Included in the gift of the late William Osgood B. Field was a klippe of Cologne supposedly issued in 1683 during an uprising supposedly led by a haberdasher, Nicolaus Gülich. Alfred Noss,<sup>1</sup> the authority on the coinage of Cologne, believes these pieces are modern fabrications and that none of them were coined for or during the uprising. He bases his opinion on the crude style of the shield which seems to him to be the work of a copier lacking the understanding and artistic ability of a contemporary artisan. The formation of the shield on the klippe with its three deformed crowns is not found on any known Cologne coin. The piece is uniface; it measures 27 by 29 mm.; and weighs 13.63 grams. It is illustrated on PLATE XXIII, 6.

HENRY GRUNTHAL  
JOHN L. DRESSER

<sup>1</sup> Cf. Alfred Noss, *Die Münzen und Medaillen von Köln*, IV, p. 247, no. 498; pl. 14, 498, b.

# ON TWO COINS OF MUẒAFFAR GHĀZI, RULER OF MAIYĀFĀRIQĪN

[A.H. 617-642/A.D. 1220-1244]

(SEE PLATE XXIV, 1-3)

The American Numismatic Society has in its possession two copper coins of Muẓaffar Ghāzi, the Aiyūbid ruler of Maiyā-fāriqīn (modern Silvān, in the vilayet of Diyarbekir, Turkey) from A.H. 617 to 642 (A.D. 1220-1224), both of which show peculiarities hitherto unknown — so far as I can discover — to Oriental numismatists and historians. Neither of the coins is well preserved and it is only through comparison of the two that they can be partly deciphered.

No. 1

Obv.

الاما[م]  
المستمع[صم]  
بالله ام[بر]  
الموم[نين]  
.....

Margin effaced. Dot over  
first ن of المومنين

18 mm., 1.86 gr.

Rev.

..... بميا فا  
السلطان ا  
[لم] لك المظفر[ر]  
.....  
.....

Rest of the inscription  
effaced. Dots over ن of  
المظفر ظ and السلطان

PLATE XXIV, 1

No. 2

Obv.

Rev.

الاما[م]	.....
المستمع[صم]	السلطان[ن ا]
بالله امي[ر]	لملك المظفر
الموم[نين]	غازي بن ايوب (؟)
	.....

Margin effaced. و over و of

Margin effaced. Lower part

م. of the inscription indistinct.

20 mm., 2.17 gr. (ex W. L. Wright Coll.) PLATE XXIV, 2.

The debased epigraphy of the coins makes the reading sometimes uncertain; however, it appears that the name of the Caliph-al-Musta'sim is the one inscribed. A rather extensive study of the epigraphy of Aiyūbid coins of the time, in the ANS Collection, has definitely shown that of the four strokes composing the complex .....ست..... one is quite often omitted.<sup>1</sup> It has also shown that the medial ع tends to be confused with a medial ه. At any rate, it is not possible, on purely epigraphical grounds, to read al-Mustanṣir on either of the coins. Furthermore, historical considerations seem to confirm the reading we suggest.

Another epigraphical problem is posed by the differing inscriptions on the obverse of both coins at the right of the area; the areas themselves are identical. Coin No. 1 clearly reads محمد. The name is not found either in Muẓaffar Ghāzi's *kunyah* or in his various *alqāb*. The likeliest hypothesis seems to be, then, that the *Kalimah* was inscribed around the area and that محمد must be followed by رسول الله and preceded by

<sup>1</sup> In particular the coins of Tūrānshāh IV (unpublished).



لا اله الا الله. This interpretation, however, cannot apply to coin No. 2. The inscription there should probably read..... [احد]ى و ار[عين], hence the date 641, a date which corresponds with evidence drawn from historians. But why this difference between inscriptions — one a date, the other a name — on coins otherwise so similar and obviously belonging to the same time? It is true of course that Aiyūbid mint-masters were seldom consistent in setting up their inscriptions. But on coin No. 2, the top line of the reverse reads ميا[فارقين]. Considering the position of the mint-name, the year of the striking should follow, around the area of the reverse. In known examples, the appearance of the mint-name and date on different sides of the coin<sup>2</sup> is limited to coins with figures. Coin No. 2, being without figure, seems to present an anomaly. Is the inscription surrounding the area of the obverse some sort of modified *Kalimah*? Is it the date and the mint? What then is written on the reverse? Does the coin introduce a new formula? The problem remains unsolved and will probably remain so until new coins of the same type are found.

Before considering the historical value of these two coins, it is important to compare them with other known coins of Muẓaffar Ghāzi. If we except a group of coins earlier than A.H. 630,<sup>3</sup> coins of the ruler of Maiyāfāriqīn so far published can be

<sup>2</sup> For instance, S. Lane-Poole, *Catalogue of Oriental Coins in the British Museum* (London, 1879), IV, nos. 612 ff. The catalogue will be referred to as *B.M.*

<sup>3</sup> H. Lavoix, *Catalogue des Monnaies Musulmanes de la Bibliothèque Nationale* (Paris, 1896), III, no. 693; *Ibid.* nos. 694–695, although not dated, belong to the same type. I. Ghalib Edhem, *Monnaies Turcomanes* (Constantinople, 1894), p. 160. *Erbab-i Merakdan bir Zat* (Anon.), (Constantinople, 1901), pp. 104–105. Markoff, *Inventory* (St Petersburg, 1894), p. 359, lists two coins of Muẓaffar Ghāzi. One is dated 63X, the other one has mint and date effaced. The latter is briefly described as being “of another type.” Lack of further description forces us to leave these two coins out of our study. E. Zambaur, “Nouvelles Contributions à la Numismatique Orientale,” *Numismatische Zeitschrift*, N.F., VII (1914), (referred to here as “Contributions III”), p. 177, lists three coins dated A.H. 618 and describes them as of the type *B.M.*, IV, nos. 462–463. Following him, we may attribute these coins of the British Museum to this earlier period.

divided into two categories. The inscription of the first group of coins — the majority<sup>4</sup> — has the name of an Aiyūbid overlord, generally one of the Egyptian rulers, al-Malik al-Kāmil or al-Malik al-Ṣāliḥ Aiyūb. The second group is not inscribed with the name of any overlord, except the Caliph of Baghdād.<sup>5</sup> The inscription on these coins is simple. Fraehn<sup>6</sup> deciphered the obverse المستنصر بالله امير المؤمنين and the reverse الملك المظفر غازي بن ايوب.

The title of Muẓaffar Ghāzi is always *al-malik*, in both groups of coins. The two coins of the American Numismatic Society with the title of *sultān* are thus of particular interest. It should be noted that the inscriptional arrangement of these coins is quite different from that of all other coins of Muẓaffar Ghāzi, except that described by Fraehn, with which it has certain similarities. Fraehn's coin cannot be later than A.H. 640, the date of al-Mustanṣir's death. The fact, however, that its inscription does not include the name of any overlord, and that, except for the title of *sultān*, it is so similar to that of the two coins of the American Numismatic Society, indicates that Fraehn's coin must have been struck in the late thirties of the seventh century of the Hijrah. All other coins with the name of al-Mustanṣir have the name of an Aiyūbid overlord in addition to that of the Caliph. We shall see that it is reasonable to assume that, around A.H. 640, Muẓaffar Ghāzi may have

<sup>4</sup> *B.M.* IV, nos. 464-466; *Ibid.*, Suppl., p. 229, no. 466a; Lavoix III, nos. 696-697; I. Pietraszewski, *Numi Mohammedani I* (Berlin, 1843), p. 126. Pietraszewski mentions two coins of Muẓaffar Ghāzi, both of them with unusual inscriptions, which may be due to errors in decipherment. Only the first of the two has almost certainly the name of an overlord.

<sup>5</sup> I. Pietraszewski, *op. cit.*, p. 126, the second coin of Muẓaffar Ghāzi; Fraehn, *Novae Supplementa* (St Petersburg, 1855), p. 92.

<sup>6</sup> The inscription on Pietraszewski's coin is original, but one cannot trust the author's reading. P. 115, he read السلطان, where his own drawing of the coin quite clearly shows الملك.

been led to express his independence, — and it is at that time that he had the title of *sultān* inscribed on his coins.

J. H. Kramers, in the *Encyclopedia of Islam*,<sup>7</sup> writes that the title is never found on Aiyūbid coins. It is, however, generally found in Aiyūbid inscriptions.<sup>8</sup> So far as coins are concerned, Zambaur<sup>9</sup> corrects Kramers' statement, saying that no Aiyūbid coins bear the title of *sultān* "until the middle of the eighth century." This statement, too, needs revision. Before the Aiyūbid rulers of Ḥiṣn Kaifa<sup>10</sup> there are several examples of usage of the title by descendants of Ṣalāḥ al-Dīn. The American Numismatic Society has in its possession eleven unpublished coins of Tūrānshāh, the son of al-Ṣāliḥ Aiyūb, ruler of Egypt and Damascus from *Sha'bān* 647 to *Muḥarram* 648. Of these eleven coins, most of which were struck in Damascus, nine bear the title of *sultān* (cf. PLATE XXIV, 3). However close in time these coins are to those of MuẒaffar Ghāzi, we may assume that, with the turmoil which swept the Near East at this time of almost constant Mongol attacks and with the growth of Mamluk influence, the childish and depraved Tūrānshāh felt compelled to assume a title which had been — as a general rule — avoided, on coins at least, by his forefathers and cousins.

<sup>7</sup> J. H. Kramers, art. "Sultān."

<sup>8</sup> See *Répertoire Chronologique d'Epigraphie Arabe*, vols. X and XI, *passim*. There are three recorded inscriptions of MuẒaffar Ghāzi, one of A.H. 623 (*Répertoire*, X, no. 3959), one of A.H. 624 (*Ibid.*, no. 3975), one listed under A.H. 642 (*Répertoire*, XI, no. 4240). All these inscriptions give the title of *sultān* to the ruler of Maiyāfāriqin. Although the problem has never been thoroughly studied, it would seem that religious scruples prevented Aiyūbid princes from using the title on coins. Throughout their history the Aiyūbids were considered as champions of orthodoxy, whether against Shi'ites or against Crusaders. However, the caliphal authority never sanctioned their assumption of the title of *sultān*. Considering the traditional importance attributed to the use of titles on coins, we may understand their reticence in this respect. Cf. note 14.

<sup>9</sup> Zambaur, "Contributions III," p. 179.

<sup>10</sup> Ahmed Tewhid, "Monnaies des Ayoubites de Hisn Kaifa," *Congrès International de Numismatique* (Bruxelles, 1911). Also *Erbab* . . . , pp. 109-110.

Earlier than Tūrānshāh, earlier than Muẓaffar Ghāzi, there are two sets of examples of the title on Aiyūbid coins. The first is a gold coin of Ṣalāḥ al-Dīn in the British Museum<sup>11</sup> and is characterized by Lane-Poole as "rare and unusual."<sup>12</sup> The coin is dated A.H. 583/A.D. 1187. The date is essential to the understanding of the coin: this was the year of Ṣalāḥ al-Dīn's reconquest of Jerusalem. The event had extraordinary repercussions throughout the Moslem world.<sup>13</sup> And the title on the coin is like an honorary title on a commemorative medal; it is not necessarily an attempt by Ṣalāḥ al-Dīn to assert, through this coinage, the spiritual significance of his rulership.<sup>14</sup> The collections of the Bibliothèque Nationale and of the British Museum have also a few coppers which probably have the title of *sulṭān*.<sup>15</sup> The paucity of examples, together with the fact that they were all probably struck in the same year (A.H. 587/A.D. 1191), seems to show that the experiment was not entirely approved of, and that Ṣalāḥ al-Dīn did not dare to continue inscribing on coins a title he had otherwise more or less definitely appropriated.

The second group of Aiyūbid coins bearing the title of *sulṭān* is the one which was supposed by Zambaur to show the suzerainty of the Seljuq house over the rulers of Syria.<sup>16</sup> Three

<sup>11</sup> *B.M.*, IV, Suppl., no. 254a.

<sup>12</sup> *Ibid.*, Introd., p. XVI.

<sup>13</sup> N. Sobernheim, art. "Saladin," *E.I.*

<sup>14</sup> Inasmuch as he uses the title *السلطان الاسلام والمسلمين*, which did not have the same significance as that of plain *السلطان*. This is the title used later by Mamluks. Fatimids used *سلطان الاسلام*. Somehow it was more of a *laqab*, which, for religious reasons, was not maintained on coins. For a brief discussion of the adoption of the title of *sulṭān* by Saladin, see M. van Berchem, *Matériaux pour un Corpus Inscriptionum Arabicarum, Première Partie: Egypte*, in *Mémoires de la Mission Archéologique Française au Caire*, t. XIX (Paris, 1903), p. 299, n. 4. Max van Berchem shows that, even on his inscriptions, Ṣalāḥ al-Dīn did not adopt the title as a rule. It never occurred before A.H. 583/A.D. 1187 and, after that date, only sporadically.

<sup>15</sup> Lavoix III, nos. 468 and 490; *B.M.* IV, nos. 279-283.

<sup>16</sup> Zambaur, "Contributions à la Numismatique Orientale," *Numismatische Zeitschrift*, XXXVI (1904), pp. 81-82. This article is hereafter referred to as "Contributions I."

coins bear the name of an Aiyūbid and of Keykhosrev II, the ambitious Seljuq leader.<sup>17</sup> The coin of the Bibliothèque Nationale and the second coin of Zambaur were struck in Aleppo in A.H. 638. The first coin of Zambaur was struck in Damascus in A.H. 640. It should be noted that, in all these cases, only Keykhosrev has the title of *sultān*. The Aiyūbid ruler, whether al-Ṣāliḥ Ismā'il of Damascus or al-Nāṣir Yūsuf of Aleppo, is still *al-malik*. Zambaur used these three coins and a text of Abū al-Fidā'<sup>18</sup> in order to show that, in their desire to fight their cousin from Egypt and his Khwārizmian mercenaries, the two Aiyūbid rulers actually accepted the suzerainty of Keykhosrev. And Zambaur says: "Cette alliance a du être du reste fort éphémère; ni les pièces antérieures...ni postérieures...ne portent le nom du suzerain."<sup>19</sup> It may be open to doubt that there actually was a technical suzerainty of the Seljuq over the Aiyūbid princes. Abū al-Fidā' merely relates, in the passage quoted by Zambaur, that Keykhosrev married the sister of the ruler of Aleppo, while al-'Azīz himself married the sister of Keykhosrev. And he adds: *وخطب لفيث الدين كيخسرو بجلب*. Zambaur translates: "(A la suite de cette alliance) la khotba fut faite à Halab au nom de Kai-khosraw."<sup>20</sup> Although not incorrect, this translation may be misleading. The original does not say that *from then on* the name of Keykhosrev was mentioned in the *khuṭbah*. The text simply says that on that occasion the name of the Seljuq ruler

<sup>17</sup> Lavoix III, no. 570, with the corrections added by P. Casanova, pp. 559-560; Zambaur, "Contributions I," p. 81; Zambaur, "Contributions III," p. 179. *B.M.* IV, no. 340, although listed by Zambaur, does not have the name of the Seljuq ruler. It does not even seem to be an Aiyūbid coin. Lane-Poole has perhaps mistaken a Mamluk coin for an Aiyūbid one.

<sup>18</sup> Abū al-Fidā', *Kitāb al-Mukhtaṣar* (Cairo, 1325), III, p. 170. The alliance was not completely unsuccessful, for Abū al-Fidā' says that, in 641, the Mongols defeated Keykhosrev in spite of the help he received from Aleppo (Abū al-Fidā', III, p. 171).

<sup>19</sup> "Contributions I," p. 82.

<sup>20</sup> "Contributions III," p. 180.

was pronounced in the mosque, probably as a mark of honor to a distinguished ally. The coins may not have any wider meaning than that of recording an alliance. In deference to their ally, the Aiyūbid rulers have used, on their coins, the title he uses himself, but have also kept their own traditional one.

Thus we have seen that the two instances of the usage of the title of *sulṭān* before or in A.H. 640 can be explained by reference to specific events. Furthermore, while the later Aiyūbids, al-Ṣāliḥ Ismā'il and al-Nāṣir Yūsuf, used the title only for the ruler of another house than their own, Ṣalāḥ al-Dīn took for himself what Max van Berchem has called a "composite"<sup>21</sup> title. Muẓaffar Ghāzi's coins differ from Ṣalāḥ al-Dīn's and the later Aiyūbids'; unlike al-Ṣāliḥ Ismā'il's and al-Nāṣir Yūsuf's coins, they bear no name except that of the Caliph and that of the ruler of Maiyāfāriqīn; and unlike Ṣalāḥ al-Dīn's coins, they use the straight form *al-sulṭān al-malik* instead of the composite one *al-sulṭān al-muslimīn*. In order to find an explanation, and to make an approximation of Muẓaffar Ghāzi's role in the complex history of the times, we have to return to Abū al-Fidā' and to other historians.

After the deaths of al-Kāmil, ruler of Egypt, and of al-Ashraf, ruler of Damascus, their sons, respectively al-Ṣāliḥ Aiyūb and al-Ṣāliḥ Ismā'il, took over the governments of Egypt and Damascus.<sup>22</sup> The old animosity between Syria and Egypt revived and, as Zambaur says completing Casanova's hypothesis<sup>23</sup> that the Seljuq alliance was sought by the ruler of Damascus and Aleppo against the Khwārizmians, the Khwārizmians were employed by the Egyptian ruler. Most

<sup>21</sup> M. van Berchem, *loc. cit.*

<sup>22</sup> Actually, in Egypt, another son of al-Kāmil, al-ʿĀdil II, reigned for a short time after the death of his father and before the return of al-Ṣāliḥ from Syria.

<sup>23</sup> In Lavoix III, p. 569; Zambaur, "Contributions I," p. 81.

Aiyūbid princes took sides; and as Egypt formed a large unit, while Syria was split among minor dynasts, we generally find a large number of small princes allied against al-Ṣāliḥ Aiyūb. What was Muẓaffar Ghāzi's role in this feud? The ruler of Maiyāfāriqīn is not very often mentioned by either Maqrīzi or Abū al-Fidā'. The versatile historian of Egypt mentions him once. The instance is this: in the year A.H. 638/A.D. 1240-1241, a Mongol embassy reached Maiyāfāriqīn and required the surrender of the town and the destruction of its fortifications. Timidly and cautiously Muẓaffar Ghāzi answered that he is "only one of the (Aiyūbid) princes and that the town (he) owns is little indeed when compared to the lands of Rūm, of Syria and of Egypt." "Go to the rulers of these countries, says he to the ambassadors of the qakhān, and I shall regulate my conduct according to theirs."<sup>24</sup> In this case, Muẓaffar Ghāzi appears as a neutral character, refusing to take sides. In the following year, however, he entered into an alliance (اتّفق) with the Khwārizmians.<sup>25</sup> We know from the same authority that in the preceding year the Khwārizmians, who had been devastating the whole of Syria, spared the possessions of the ruler of Hamah because he was an ally of al-Ṣāliḥ Aiyūb.<sup>26</sup> We can thus assume that Muẓaffar Ghāzi himself was, if not distinctly an ally, at least a friend and supporter of the Egyptian house; this contention is further supported by the fact that there generally appears on his coins the name of an Egyptian Aiyūbid, al-Kāmil<sup>27</sup> or al-Ṣāliḥ Aiyūb.<sup>28</sup>

The alliance between the Khwārizmians and the ruler of Maiyāfāriqīn turned out unsuccessfully. They were opposed

<sup>24</sup> Maqrīzi, *Histoire de l'Égypte*, tr. E. Blochet, *Revue de l'Orient Latin*, X, pp. 345-346.

<sup>25</sup> Abū al-Fidā', p. 169.

<sup>26</sup> *Ibid.*, p. 168.

<sup>27</sup> For instance, *B.M.* IV, no. 466a.

<sup>28</sup> For instance, Lavoix III, no. 697.

by the combined forces of Aleppo, Hims and Damascus. Such a show of force can only be explained as evidence of the desire, on the part of the Syrian princes, to eliminate any potential enemy threat on their northeastern flanks. They succeeded in that task. Muẓaffar Ghāzi and his Khwārizmian allies were completely defeated in the late part of A.H. 640/A.D. 1242–1243. Al-Malik al-Manṣūr Ibrahīm of Hims even succeeded in “breaking through the camp of al-Malik al-Muẓaffar Ghāzi and in taking possession of his treasury and of his tents.”<sup>29</sup> The alliance probably broke down then, but in 642 we find the Khwārizmians again allied to al-Ṣāliḥ Aiyūb.<sup>30</sup> Thus a certain consistency in their policy seems, established. Called by an Egyptian ruler to play the part of “rangers” or “irregulars,” they faithfully accomplished it, helped by or helping any ally al-Ṣāliḥ Aiyūb may have found in Syria and Northern Mesopotamia. Among them was the ruler of Maiyāfāriqin.

This is, I think, a likely hypothesis to explain the part played by Muẓaffar Ghāzi in the complex balance of power of the time. How is it connected with his assumption of the title of *sulṭān*? The two coins described above undoubtedly belong to the period which followed his defeat by the united forces of Aleppo, Hims and Damascus. Al-Musta‘ṣim did not become Caliph before the middle of the year, while the battle occurred around the month of *Ṣaḡar*, the second month of the Arabic calendar. It seems paradoxical that Muẓaffar Ghāzi should adopt the highest title in the hierarchy of the time — after that of Caliph — immediately following a crushing defeat. The paradox is further complicated by the addition of the only known inscription of Muẓaffar Ghāzi, which is added by the editors of the *Répertoire* to the inscriptions of the year A.H.

<sup>29</sup> Abū al-Fidā’, p. 171.

<sup>30</sup> *Ibid.*



642, but which may be earlier.<sup>31</sup> In this inscription he is called, among other titles, "... the savant . . . . ., the champion of faith, who exacts justice for the oppressed from the oppressor, the killer of the unfaithful and the polytheist, . . . ." Is this mere megalomania, possible in a man who earlier called himself "master of kings and sultans?"<sup>32</sup> The hypothesis cannot be excluded, but, drawing on actual events, we can reach another and more likely solution.

Muẓaffar Ghāzi has just been defeated. The alliance with the Khwārizmians has broken down. Because of his friendship with the Egyptian house, Muẓaffar Ghāzi was probably not on good terms with Keykhosrev and his vassals. He was always threatened by a possible Mongol attack. We may suppose that in order to increase his prestige among his subjects, in order to raise himself to the same hierarchical level as his Seljuk neighbours, Muẓaffar Ghāzi decided to strike coins, on which would appear the title those neighbours were using, and which he himself used in inscriptions, and probably on official documents.

The two coins of the American Numismatic Society bearing the title of *sul'ān* have thus led us to two interesting, however minor, results. First, they are another example of the title on Aiyūbid coins before the middle of the eighth century of the Hijrah. Statements such as that of Kramers in the *Encyclopedia of Islam* cannot be accepted. Secondly, they throw some light on the history of a relatively unknown Aiyūbid ruler, who kept the traditional title of *al-malik* as long as he was entangled in the complex balance of power of the time, but who adopted the lofty title of *sul'ān* on his coins after

..... العالم ..... المجاهد ..... منصف المظالم [و] مين من الظالمين [فان] الكفرة  
[المشركين] : *Répertoire*, XI, no. 4240.

<sup>32</sup> سيد الملوك والسلطين : *Ibid.*, X, no. 3959.

having been defeated. This defeat forced Muẓaffar Ghāzī to retire into his principality, where greater independence from the feuds of his time and separation from the quarrelsome sons of Aiyūb gave him two years of comparative quiet. The independence is, in my opinion, what led him to take the final step in assuming the title of *sulṭān*, that of inscribing it on his coins, without the mention of any overlord. After his death his son al-Kāmil successfully and peacefully took over the government of Maiyāfāriqīn<sup>33</sup> and ruled the city until the whole region was crushed by the Mongols in A.H. 658/A.D. 1260.

OLEG GRABAR

<sup>33</sup> Zambaur, "Contributions III," p. 178, lists two coins of al-Kāmil, one of which bears the title *al-sulṭān al-malik*.

## A THREE-*WUQĪYAH* GLASS WEIGHT

(SEE PLATE XXIV, 4)

Among a group of broken early Arabic glass pieces presented some months ago<sup>1</sup> to the Museum of the American Numismatic Society by M. Marcel Jungfleisch of Cairo is a fragmentary disk-weight measuring 54 x 37 mm., on which only the bottom two lines of the legend and a part of the line preceding are preserved. The entire weight must originally have measured between 75 and 80 mm. in diameter. The preserved portion of the inscription reads:

.....بصنعه  
ثلاث اواق ربع  
رطل واف

The tails of several of the letters in the first part of the third from last line are visible and strongly suggest the reading بن مرون; it is therefore more than likely that the entire legend read:

بسم الله	In the name of Allāh:
امر الله بالوفا	commanded Allāh honesty;
وامر الامير عبد الملك	and ordered the Amīr 'Abd al-Malik
بن مرون بصنعه	b. Marwān the stamping of it,
ثلاث اواق ربع	three 'awāq, one-quarter
رطل واف	ratl, full weight.

<sup>1</sup> Acquired after "Early Arabic Glass Weights and Stamps — A Supplement" (ANS *Numismatic Notes and Monographs*, No. 120, New York, 1951) went to press.

The weight is therefore in all probability one issued by 'Abd al-Malik b. Marwān, last Umayyad Finance Director and Governor of Egypt, whose terms of office extended from 131 to 133 of the Hijrah, that is, from A.D. 749-750.<sup>2</sup> The peculiar interest in this fragment lies in the heretofore unrecorded legend preserved in the last two lines: "three 'awāq, one-quarter *raṭl*." 'Awāq<sup>3</sup> is the plural of *wuqīyah* (or 'uqīyah), a word derived from the Greek οὔγκια, Latin *uncia*, "ounce." It is well known that the *wuqīyah*<sup>4</sup> was traditionally (and is today) the twelfth part of the *raṭl* (*libra*). Perhaps the earliest mention of the *wuqīyah* in terms of *dirhams* in Islamic literature is a statement by the historian al-Balādhuri (d. A.H. 279: A.D. 892) to the effect that the weight of the *wuqīyah* was 40 *dirhams*.<sup>5</sup> As the early *raṭl* was calculated at 480 *dirhams*, it is clear, as many later mediaeval Arabic writers expressly stated,<sup>6</sup> that there were 12 "ounces" to the "pound." Our glassweight of the mid-eighth century, stating that 3 'awāq =  $\frac{1}{4}$  *raṭl*, is, so far as I am aware, the earliest document confirming this relationship between the *wuqīyah* and the *raṭl*.<sup>7</sup>

GEORGE C. MILES

<sup>2</sup> For other weights and glass stamps of 'Abd al-Malik b. Marwān, see my "Early Arabic Glass Weights and Stamps" (ANS *Numismatic Notes and Monographs*, No. 111, New York, 1948), pp. 94-96, and the "Supplement," referred to above, p. 14.

<sup>3</sup> An alternative plural form is 'awāqīy (أَوَاقِي). The glass weight under discussion is slightly chipped at this point so that the end of the word and part of the *rā'* of *rub'* are obliterated, but I should say that the *qāf* is not followed by *yā'*.

<sup>4</sup> For the word, and the weight, see George C. Miles, "A Byzantine Weight validated by al-Walid" (ANS *Numismatic Notes and Monographs*, No. 87, New York, 1939), pp. 4 ff., "Early Arabic Glass Weights and Stamps," pp. 17-18, and "Supplement," pp. 29-30. II. Sauvaire's assemblage of literary references to the *wuqīyah* is to be found in *Journal Asiatique*, Apr.-June, 1884, pp. 380-397.

<sup>5</sup> Balādhuri, *Futūḥ al-Buldān* (ed. de Goeje), p. 64: والاقية وزن اربعين درهماً

<sup>6</sup> Cf. Sauvaire, *Journal Asiatique*, Aug.-Sept., 1884, p. 313.

<sup>7</sup> Because of its fragmentary condition this piece of course adds nothing to our knowledge of the actual weight of the eighth century Egyptian *wuqīyah*. The fragment weighs 39.60 grams; to judge by our records of intact *wuqīyah* weights (cf. "Early Arabic Glass Weights and Stamps," pp. 17-18, "Supplement," p. 30), it should have weighed before it was broken 3 x ca. 32 grams = ca. 96 grams.

## A RARE ARMENIAN COIN

(SEE PLATE XXIV, 5-6)

The writer recently visited the American Numismatic Society where he was shown the Society's collection of Armenian coins. In this collection was a Gorige coin which to the best of our knowledge is the first to possess Armenian lettering. The presence of this coin seemed of particular interest in view of the fact that Brosset,<sup>1</sup> Langlois<sup>2</sup> and Basmadjian<sup>3</sup> have reported a Gorige coin in the Leningrad Asiatic Museum and considered it to be the only specimen in existence.

Brosset and Langlois have discussed at some length various interpretations of the inscription on the Leningrad coin (PLATE XXIV, 5) and speculated on the period to which it belonged. A survey of the literature, which, incidentally, is mostly in the Armenian language and not readily accessible to readers, revealed some interesting facts concerning this coin, as for example, the existence of a third and possibly other specimens, the correct interpretation of the coin's inscription and the probable period of its issue.

In his booklet on the history of the Gorigian kingdom, Movsesian<sup>4</sup> discloses that the existence of a Gorige coin in the Mekhitarian convent in Vienna prompted him to write this study. He states (footnote, p. 89): "It is said that there are examples of this coin in the collection of the Mekhitarian

M. Brosset, *Monographie des Monnaies Armeniennes*, (Bull. hist.-phil. de l'Academie des Sciences de St. Petersbourg, VI, 1840), p. 29ff., Pl. I, 1.

<sup>2</sup> V. Langlois, *Numismatique de l'Armenie au Moyen Age* (Paris, 1855), p. 28-30.

<sup>3</sup> K. J. Basmadjian, *Numismatique générale de l'Arménie*, (Venice, 1936) (in Armenian), p. 48-50.

<sup>4</sup> L. Movsesian, *History of the Gorigian Kingdom* (Vienna, 1923), (in Armenian).

convent in Venice.” The writer wrote to the proper authorities in Venice and was informed by them that it was impossible to verify Movsesian’s statement since all of the convent’s coins had been placed in strong boxes during World War II and had not yet been re-opened.

In the preface of the classic treatise on Roubenian coins by Sibilian<sup>5</sup> there is a comment by the editor to the effect that a silver Gorige coin has been discovered by H. Lalayan and donated to the Museum of the Seat of the Armenian Church in Etchmiadsin, Armenia. The identity of this silver coin with that of the copper Gorige coins under discussion was not, however, established.

It thus becomes apparent that there are at least three Gorige coins definitely in existence, probably a few more in the Mekhitarian convent in Venice, and possibly a silver one in Etchmiadsin, Armenia.

The second point of interest is the correct reading of the inscription on this coin. The reverse side of the Gorige coin in the Leningrad collection unfortunately lacked a number of letters, thus leading to considerable speculation as to the wording. Neither Brosset nor Langlois could give a correct reading. The Vienna specimen which is similar to the one found in the American Numismatic Society’s collection (PLATE XXIV, 6) is in better condition and more legible, so that Movsesian was able to give the complete wording on this coin. A correct reading also appears in the preface of Sibilian’s book published in 1892, probably as a result of examination of the Vienna coin.

The incomplete lettering of the Leningrad coin, and the more complete lettering of the Vienna coin, together with the full interpretation and translation, are shown in Figs. 1 and 2 respectively. It is thus seen that the key word is GORA-

<sup>5</sup> C. Sibilian, *Classification of Roubenian Coins* (Vienna, 1892), (in Armenian).

BAGhAD, which is the Armenian for the Greek word *κουροπαλάτης*, a title given by the Byzantine emperors to the governors of provinces. Although Langlois read this word as

ՅՍ - ՔՍ	I[SOU]S-K[RISDO]S	JESUS-CHRIST
ԹՐ ՈԳ	+ D[E]R OK	MAY THE LORD
ՆԵ ԿՈՐԻԿ	NE GORIG	AID GORIGE
Ի ԿՈՐԱ	I GOR[IGIAN]	THE GORIGIAN
Ա	A[RKAI]	KING

Fig. 1

INSCRIPTION ON THE LENINGRAD COIN AND ONE OF  
LANGLOIS' INTERPRETATIONS

ՅՍ - ՔՍ	I[SOU]S-K[RISDO]S	JESUS-CHRIST
ԹՐ ՈԳ	+ D[E]R OK	MAY THE LORD
ՆԵ ԿՈՐԻԿ	NE GORIG	AID GORIGE
ԵՐ ԿՈՐԱ	EI GORA	THE GORA
ԿԱԴԱ	BAGhA	BAGHAD
[ՆՐԵ]	[DIN]	

Fig. 2

INSCRIPTION ON THE SOCIETY'S COIN AND ITS CORRECT READING

“Gorugian,” he made a conjecture that the incomplete word might conceivably be GORABAGhAD.

There remains the problem of determining the identity of the ruler in whose name the coin was struck. The opinion of

Brosset and Langlois that it belongs to one of the Gorige kings of the Gorigian kingdom must be rejected on several grounds. The following arguments have been advanced by Movsesian and later by Basmadjian. The Gorige kings were actually referred to as kings in contemporary writings; therefore their coins would bear the notation of King (TAKAVOR or ARKA) and not GORABAGhAD which is an inferior and less desirable title. It should also be taken into account that the Gorige kings acknowledged the sovereignty of the Bagradit kings from whom we have no coinage. Since the Bagradit kings apparently did not possess the right to issue coinage, it is highly improbable that there should exist a coinage of their vassals.

The style of the epigraphy of these coins indicates that they were struck sometime between the end of the tenth and the beginning of the eleventh centuries. During this period, the princes of the province of Daik (adjacent to the southeastern corner of the Black Sea) held the title of GORABAGhAD.<sup>6</sup> Gorige was a common name of the period and it seems very likely that the coins belonged to one of the princes of Daik then reigning. There is apparently no historical reference to the specific prince who issued them and this point still remains to be established.

PAUL BEDOUKIAN

<sup>6</sup> J. de Morgan, *Histoire du Peuple Armenien* (Paris, 1919), p. 145.



## A BOUSTROPHEDON COIN OF ABDAGASES

(SEE PLATE XXIV, 7-11)

In an article entitled "New or Rare Hindu and Muhammadan Coins" published by Dr. A. F. Rudolph Hoernle in the *Journal of the Asiatic Society of Bengal* for 1897, the author described an unusual bronze coin of the Indo-Parthian King Abdagases, nephew and successor of Gondophares. This coin had been previously recorded by Dr. Hoernle in the *Proceedings* of the above Society for May, 1895. The obverse, bearing the King's diademed and bearded bust to the right and a marginal legend in corrupt Greek, was not illustrated, but reverses of two specimens presenting Nike to the right, holding a wreath, appear on the subjoined plate VI, figures 7 and 8.

The Kharoṣṭhi inscription on the coin is *boustrophedon*;<sup>1</sup> the lower part, reading from the outside of the coin, right to left, contains the King's name in the genitive case — AVADAGAŚASA



Fig. 1



Fig. 2



Fig. 3

— while the upper portion of the legend, reading from the inside, left to right, gives his two titles. The first title, MAHARAJASA, is almost complete on fig. 7 (illustrated here as fig. 1) and can be easily read, the last *akṣara* being separated from the

<sup>1</sup> D. Diringer, *The Alphabet*. Philosophical Library, New York, 1948, pp. 338-9, Development of Indian Scripts: Asoka's Minor Edict.

rest of the word by Nike's wreath. The *akṣaras* of the first title are retrograde, except the HA, which is horizontal (the DA of the name is likewise horizontal). Dr. Hoernle's interpretative reading of the second title, TRADATASA, which is for the most part off flan, is purely conjectural. The limited space between the last *akṣara* SA of the first title and the first A of the King's name would be insufficient for the four *akṣaras* required by the suggested second title, and besides none of the visible fragments to the right of Nike seems to justify such a reading.

The upper right portion of the inscription of the boustrophedon coin in the Lahore Museum is so indistinct that the distinguished author of its catalogue was unable to propose a new reading.<sup>2</sup>

We were fortunate to find another specimen of this rare coin (now in the author's collection) which clearly shows that the last *akṣara*, SA, of the first title (MAHARAJASA) is followed by the two *akṣaras*: DHRA and MI, evidently an abbreviated form of DHRAMIKASA or DHRAMIASA (ΔΙΚΑΙΟΥ = the just) (cf. fig. 2 which shows the part of the inscription visible on our piece). Our reconstruction of the complete legend is shown in fig. 3.

A. Cunningham, at the time of the publication of his important series of articles on the "Coins of the Sakas, Kushans, and Hepthalites" (*Num. Chron.*, 1888-1894), must have been unfamiliar with the boustrophedon coin. His specimens with the King's bust and Nike have marginal circular Kharoṣṭhi legends reading MAHARAJASA AVADAGAŚASA TRADATASA (ΣΩΤΗΡΟΣ = the Savior). On some coins the Hinduized form of the King's name (HAVADAGAŚASA) is substituted. In Cunningham's list of names (plates VII and VIII), the title DHRAMIKASA is given to Gondophares and several other kings,

<sup>2</sup> R. B. Whitehead, *Catalogue of the Coins in the Panjab Museum, Lahore*. Oxford, 1914, Plate XV, 70. (There are no boustrophedon coins listed in the BMC and IMC.)

but not to Abdagases. Thus we have here a new title of Abdagases.

Abdagases inherited from his uncle a vast Empire, which included Arachosia, in the center, with its capital Kandahar, founded by Gondophares.<sup>3</sup> In the west was Sakasthana (Drangiana, Sistan) the cradle of the Indo-Parthian dynasty; while in the east and southeast, large portions of the Indus Valley comprised its Indian provinces.

Abdagases continued to issue the three principal classes of the coinage of his great predecessor. From Arachosia came the base silver and potin staters (sometime called drachms), class I, with the Scythian horseman, the Gondopharian symbol ⸱, and Greek inscription on the obverse, and Zeus with various adjacent monograms and Kharoṣṭhi legend proclaiming Abdagases as the nephew of Gondophares on the reverse. There are several varieties of this class. On some the horseman is turned to the right, on others to the left. Zeus usually appears to the right, but sometimes he also is turned to the left. These coins belong to the period of the co-regency of Gondophares and Abdagases and are not as rare as the other issues (cf. XXIV, 7).

Class II consists of extremely rare silver drachms of the Parthian type minted in Sakasthana. They display a diademed youthful bust of Abdagases with long, bushy hair, behind which are the first two letters of his name in Parsik characters >U (AV). On the reverse is the conventional seated Arsakes circumscribed by the box-like Greek legend giving the imperial titles and name ABΔAΓACOY. The great rarity of these coins seems to point to a special occasion for their issue, while the youthful portrait suggests that the occasion may have been the King's coronation especially since on the subsequent issues his head appears bearded. A specimen of this class

<sup>3</sup> E. Herzfeld, *Archaeological History of Iran*. London, 1935, p. 63.

(PLATE XXIV, 8) is in the Newell Collection of the American Numismatic Society's Museum. It is a coin of exceptional chronological significance which will be treated in a separate article in conjunction with a rare drachm of Vologases I of Parthia.<sup>4</sup>

Class III comprises the reduced potin staters (sometimes called half-drachms) stamped with the King's bearded bust and Nike, which were struck after Abdagases became an independent sovereign as their inscriptions indicate. Although as a rule the bust and Nike face right, sometimes they face left. Of the two already mentioned varieties of this class (PLATE XXIV, 9-10), the coins with the Hinduized name HAVADAGAŚASA were doubtless products of his Indian mints.<sup>5</sup> Our boustrophedon coin (PLATE XXIV, 11) may therefore be considered a third variety of class III. It was apparently designed by a Hindu accustomed to the Brahmi script (left to right) and was probably issued by Abdagases towards the end of his reign when he was rapidly losing his Indian provinces to the invading Kushans. These reversals might have caused the adoption of his new title — DHRAMIKA. The poorly executed portrait and the surprising introduction of the boustrophedon inscription seem to indicate that the coin was struck hurriedly, evidently during a military campaign.

As a paleographic phenomenon, Abdagases' coin brings to mind the archaic staters of Agrigentum in Sicily with the eagle and crab and the inscription AKRAC -ANTOΞ similarly arranged in boustrophedon fashion: AKRAC .<sup>6</sup>  
 ΞΟΤΙΑ

EDMUND ZYGMAN

<sup>4</sup> A silver drachm of Gondophares discovered by von Sallet is illustrated on pl. XXXII, 10 of the BMC.

<sup>5</sup> A later parallel of a similar Hinduized form may be found in the so-called dehliwalas of the early Sultans of Dehli and their contemporary Governors of Sind, which bear the title HAMIRAH, a Hinduized form of AMIR. Cf. E. Thomas, *The Patban Kings of*

## LIST OF ILLUSTRATIONS ON PLATE XXIV

7. Potin stater of co-regency of Gondophares and Abdagases. Class I. Zygmán Coll.
8. Silver drachm of Parthian style of Abdagases. Class II. ANS (Newell).
9. Reduced potin stater (half drachm) of Abdagases. Class III, variety 2. *Num. Chron.*, Ser. 3, Vol. X, 1890, Pl. XIV, 2. Rev.
10. As above, Class III, variety 3. R. B. Whitehead, *Catalogue of the Coins in the Panjab Museum, Lahore*, Vol. I, Pl. XV, 70. Rev.
11. As above, Class III, variety 3. Zygmán Coll.

*Debli* (London, 1871), p. 50; H. N. Wright, *The Coinage and Metrology of the Sultans of Debli*. Oxford, 1936, p. 67; and Wright, *IMC*, Vol. II. Oxford, 1907, pp. 184-5.

<sup>6</sup> B. V. Head, *Historia Numorum*. Oxford, 1911, p. 120, fig. 64; D. Diringer, *The Alphabet*. P. 504, Siculan Alphabet.



## THE CHIEF WHITE HAIR MEDAL

(SEE PLATE XXV)

Among the medals and decorations from the Col. George L. Hamilton Collection acquired by the Society in 1951, is the arresting medal inscribed to Chief White Hair. This is an Indian Peace Medal with the portrait of President Jefferson, dated 1801, struck in silver and measuring 75 mm. The fact that it is solidly struck in this metal places it in the rarer class of Jefferson Peace medals, since the commoner ones are merely die-struck shells joined by a collar to which is attached a suspension ring. Belden<sup>1</sup> says concerning an unengraved solid silver medal of the same design (his number 19) that it "has the appearance of a genuine medal struck for the Indians, but evidently at some later date." An unpierced specimen of this variety, also in the Society's cabinet, differs slightly from the White Hair medal and shows a marked die-break on the reverse. Since White Hair was awarded the medal in 1808, it may be safely assumed that his was from a second die, in the 75 mm. group, which was cut to supplant the earlier Belden 19 that had seen service during most of Jefferson's incumbency. The bronze impressions of the first die have an earlier appearance than those of the second, or 'White Hair' die, from which there runs a gamut of restrikes from the late nineteenth century to the very modern Mint copy. In all probability this is the very specimen that Zebulon Pike awarded the Indian Chief.

Mention is made of the award of a medal to Chief White

<sup>1</sup> B. L. Belden, *Indian Peace Medals Issued in the United States* (New York, The American Numismatic Society, 1927), p. 25.

Hair in the following quotation concerning him from the *Handbook of American Indians*:

WHITE HAIR. An influential Osage chief at the beginning of the 19th century, known also as Teshuhimga, Cahagatonga, and Pahasca or Pawhuska, and by the French as Cheveux Blancs. He was head-man of the Great Osage, whose village, known also as White Hair's Village, was situated in 1806 on the east side of Little Osage r., in the N. part of the present Vernon co., Mo. (near which Lieut. Z. M. Pike established what he called Camp Independence in 1806), and in 1825 and 1837 on the W. bank of Neosho r. in the present Neosho co., Kan., on land ceded to the United States by treaty of Sept. 29, 1865. The nominal chief of the village, according to Pike, was Casheseagra (Koshisigré, Big Foot, or Big Track), but Clermont or Clermore (Ta<sup>n</sup>wa<sup>n</sup>gahe, Builder of Towns) was the greatest warrior and most influential man, and "more firmly attached to the American interests than any other chief of the nation." He was lawful chief of the Grand Osage, but his hereditary right was usurped by White Hair while Clermont was an infant. Pike asserts that both White Hair and Casheseagra were chiefs of the trader Pierre Chouteau's creating, and neither had the power or disposition to restrain their young men from the perpetration of an improper act, lest they should render themselves unpopular. This was evident during Pike's stay in their country, when White Hair's people left to war against the whites on the Arkansas, the chief being powerless to restrain them. He treated Pike with hospitality, and sent his son, "a discontented young fellow, filled with self pride," as an embassy with Pike's party, but he soon became tired and returned. Both White Hair and his son were presented by Pike with "grand medals." White Hair seems to be identical with Papusea (Pahusca?), who was the first Indian signer of the treaty with the Osage at Ft. Clark, Nov. 10, 1808. He signed also the treaties of Sept. 22, 1815; Sept. 25, 1818; Aug. 31, 1822; June 2, 1825; and Aug. 10, 1825. He died, probably soon after the date last mentioned, at his village in Vernon Co., Mo., and was buried, in a stone tomb, on the summit of Blue Mound. The grave was afterward vandalized by treasure-seekers, and prior to 1850 the chief parts of the skeleton were taken therefrom by Judge Charles H. Allen ("Horse Allen"). About 1871 some Osage went from Kansas to Blue Mound and rebuilt the cairn formerly covering White Hair's remains, but the whites would permit neither the stones nor the few bones of the old chief to remain. The name Pawhuska survives in that of a town in Oklahoma, the present Osage agency.<sup>2</sup>

RICHARD D. KENNEY

<sup>2</sup> F. W. Hodge, *Handbook of American Indians North of Mexico*, Part 2 (Smithsonian Institution, Bureau of American Ethnology, Bulletin 30, Washington, 1910), p. 944.



## PLATES

I

A.N.S. MUSEUM



1



2



3



4



5



6



7



BENHA HOARD

NOTES V

II



8



9



10



11



12



13



14



BENHA HOARD

III

A.N.S. MUSEUM



15



16



17



18



19



20



21



BENHA HOARD



22



23



24



25



26



27



28



29



## BENHA HOARD

V

A.N.S. MUSEUM



1



2



3



4



5



6



7



8



9



10



11



12



13



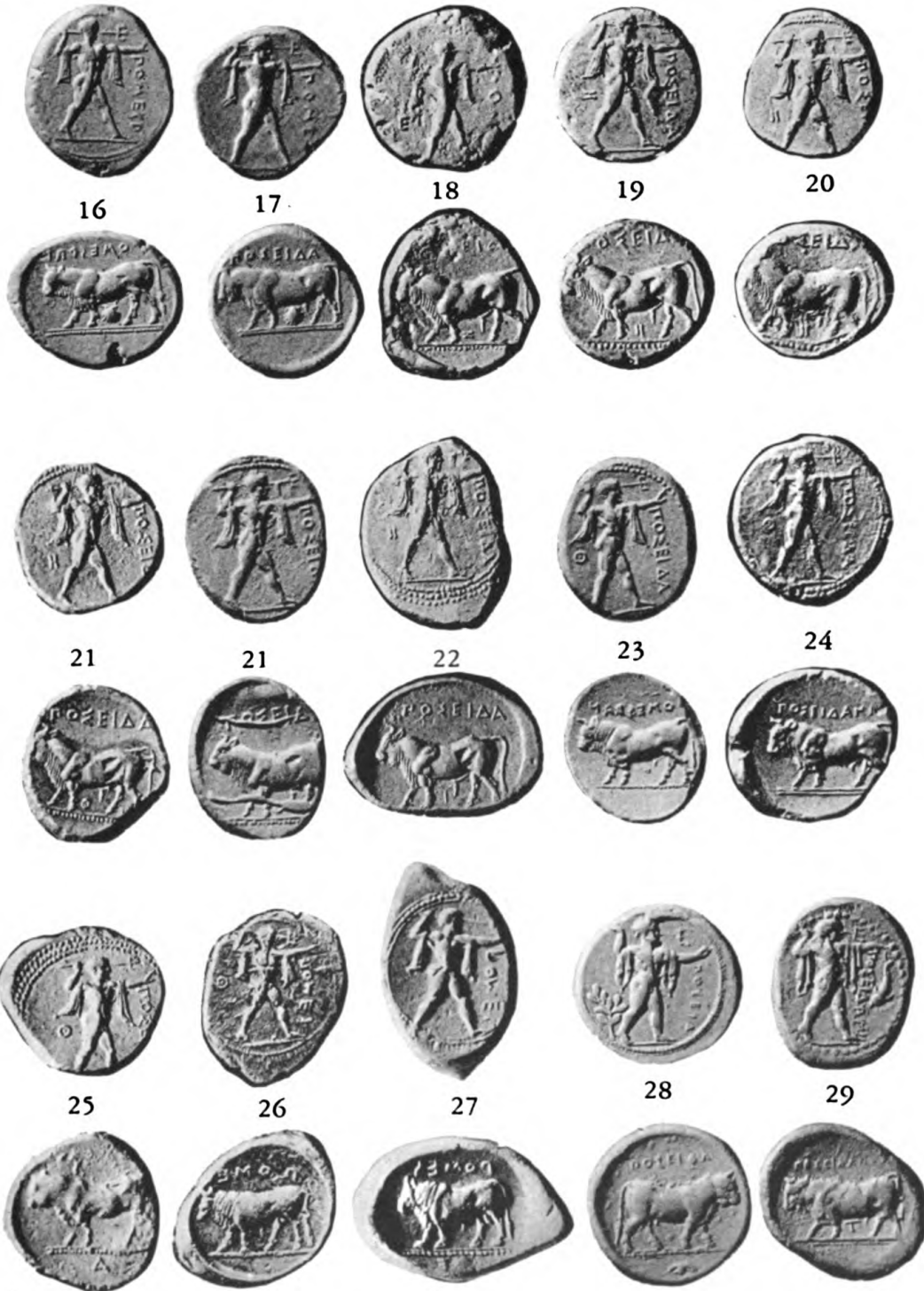
14



15



POSEIDONIA



POSEIDONIA



VII

A.N.S. MUSEUM



1



2



3



4



5



6



7



ANTIOCHUS HIERAX AT ALEXANDRIA TROAS



NOTES V

VIII



1



2



3



6



4



7



5



BEGINNING OF NEW STYLE COINAGE

IX

A.N.S. MUSEUM



8



9



A



10



B



C



BEGINNING OF NEW STYLE COINAGE

NOTES V

X



D



E



11



12



13



14



BEGINNING OF NEW STYLE COINAGE



1



2

3

4



5

6



WORKSHOPS OR MINES



SAMOTHRACE (1-3) ANTIOCH IN SYRIA (4-10)



SYRIAN TETRADRACHMS OF TRAJAN



NOTES V

XIV



# SYRIAN TETRADRACHMS OF TRAJAN



1



2



3



4



5



6



7



ARTAVASDUS



NOTES V

XVI



1



2



3



4



5



6



7



8



9

IDENTICAL MINTMARKS IN DIFFERENT  
MAJOR PERIODS OF THE FLORIN



A



B



C

DIFFERENCES IN PENDANT DESIGN  
ON FLORINS



$\alpha$



$\beta$



$\gamma$



$\delta$



$\epsilon$

DIFFERENCES IN FLOWER DESIGN  
ON FLORINS



*Simone d'Antonio Canegiani.*  
10



11



12



13

IDENTICAL MINTMARKS WITHIN SAME  
MAJOR PERIODS OF THE FLORIN

NOTES V

XX



14



15



16



17



ATTRIBUTION OF "UNKNOWN" FLORINS



1



2



3



4

EAST FRISIA

NOTES V

XXII



5



6



EAST FRISIA





## EUROPEAN ACCESSIONS





MUZĀFFAR GHAZI (1-3) GLASS WEIGHT (4)  
ARMENIA (5-6) ABDAGASES (7-11)



CHIEF WHITE HAIR MEDAL























